

**PEAVEY**  
OWNER'S MANUAL

**TransFex™ Pro  
212s:**

Midi Programmable Stereo  
TransTube® Pre Amp

Stereo TransTube  
Power Amp

24-bit Digital Stereo  
FX Processor

Dual 12" Combo  
Speaker Enclosure



**TransFex™ Pro:**

Midi Programmable Stereo  
TransTube® Pre Amp

Stereo TransTube Power Amp

24-bit Digital Stereo FX Processor





Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** Risk of electrical shock – DO NOT OPEN!

**CAUTION:** To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING:** To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito de alertar al usuario de la presencia de "(voltaje) peligroso" que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.

**PRECAUCION:** Riesgo de corrientazo – No abra.

**PRECAUCION:** Para disminuir el riesgo de corrientazo, no abra la cubierta. No hay piezas adentro que el usuario pueda reparar. Deje todo mantenimiento a los técnicos calificados.

**ADVERTENCIA:** Para evitar corrientazos o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé pour indiquer à l'utilisateur la présence à l'intérieur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la littérature accompagnant le produit.

**ATTENTION:** Risques de choc électrique – NE PAS OUVRIR!

**ATTENTION:** Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.

**AVERTISSEMENT:** Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Austreibender Stärke sind, um einen elektrischen Schlag verursachen zu können.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

**VORSICHT:** Risiko – Elektrischer Schlag! Nicht öffnen!

**VORSICHT:** Um das Risiko eines elektrischen Schläges zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

**ACHTUNG:** Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

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# Chapter 1 Setup



## THE FRONT PANEL

1. **Input**  
Used for instrument level signals
2. **Preamp Pre Gain/Global Input Level Knob**
3. **Preamp Low/Global Bass Knob**
4. **Preamp Mid/Global Midrange Knob**
5. **Preamp High/Global Treble Knob**
6. **Post Gain/Global Output Level Knob**

Knobs 2-6 are dual-purpose knobs. When a preset contains the TransTube (TB) effect in an effects chain, these knobs, when changed anywhere other than the (GLOB) page, adjust the **Pre Gain**, **Low**, **Mid**, **High**, and **Post Gain**, respectively, of the TransTube circuit. When the TransTube effect is not present in an effects chain, these knobs adjust the **Input Level**, **Low**, **Mid**, **High**, and **Output Level** on a global scale. This means that all presets are affected by these settings.

7. **PreGain/Global Input Level LEDs**

When in doubt about whether you are adjusting the TransTube or the Global settings, just look at the front panel. Right by the **Pre Gain** knob you will see two LEDs, one located by **Pre Gain** and one located by **Global Input Level**. (Notice that only one is lit at any given time.) By glancing at these LEDs, you can instantly determine whether you are changing the TransTube or Global settings. If the LED by **Pre Gain** is lit, you are adjusting the TransTube's pre and post gain and EQ. If the LED by **Global Input Level** is lit, you are adjusting the Global input, output and EQ.



#### 8. Assignable Active Clip LED

This is a bicolor LED used to indicate normal activity and when clipping occurs. The LED will glow *green* during normal activity and will glow *red* when clipping occurs. The clip LED can be assigned and placed *anywhere* within the effects chain to help run down overload conditions.

#### 9. Display Window

20-character x 2-line Liquid Crystal Display (LCD) with variable view angle adjustment for easy visibility.

#### 10. Arrow (Direction) Buttons

Used to navigate through the menus on the display: Left, Right, Up, or Down, and to increase or decrease selected values.

#### 11. Mode Button & LEDs

This button increases the number of TransTube gain stages. When clean, crunch, or lead are selected, the EQ is passive and you will use **Pregain**, **Pad**, **Postgain**, **Bass**, **Middle**, **High**, and **Presence** for editing the TransTube. When ultra is used, the EQ is active and **Bass**, **Middle**, **High**, and **Presence** will be for editing the TransTube. When ultra is used, the EQ is active and **Low**, **Middle**, **High**, and **Presence** change to **Bottom**, **Body**, **Edge**, and **Shift**, respectively.

#### 12. Play Button

This button is used to access the preset selections, program mapping, and program volume.

#### 13. Edit Button

This button accesses the editing functions for constructing new presets or editing existing ones.

#### 14. Add/Del Button

This button is used to add or delete effects from an effects chain.

## **15. Bypass/Compare Button**

Dual-function button used to compare two presets (the one being edited to the original) or to bypass the unit. When editing a preset, the **Compare** function is accessed when this button is pressed. When in the play mode (press the Play button to enter the play mode), the **Bypass** function is accessed when this button is pressed.

**Note:** Only the digital effects can be bypassed. The TransTube preamp (**TB**) cannot be bypassed.

## **16. Global Button**

This button is used to access the view angle adjustment, gain adjustment, MIDI settings, continuous controller assignments, global gain and EQ settings and the chromatic tuner.

## **17. Store/Exec Button**

Used to store changes to preset memory and to initiate system-exclusive functions or store functions.

## **18. RAM Cartridge**

Used to expand the number of programs from 256 to 384, load programs into memory, and copy programs from memory to cartridge.

## **19. Master Level**

Controls the overall volume level of the system. Once a desired balance of the clean and lead channel volume levels is achieved, the entire system level may be increased or decreased with the master level control.

## **20. Resonance Control**

Used to fine tune the low frequency range of the speaker enclosure by varying the damping factor of the amplifier at low frequency. This control can be set to boost the gain of the power amp in the low frequencies at the resonance/attenuation point of the speaker cabinet to offset low-end frequency dropout.

## **21. Presence Control**

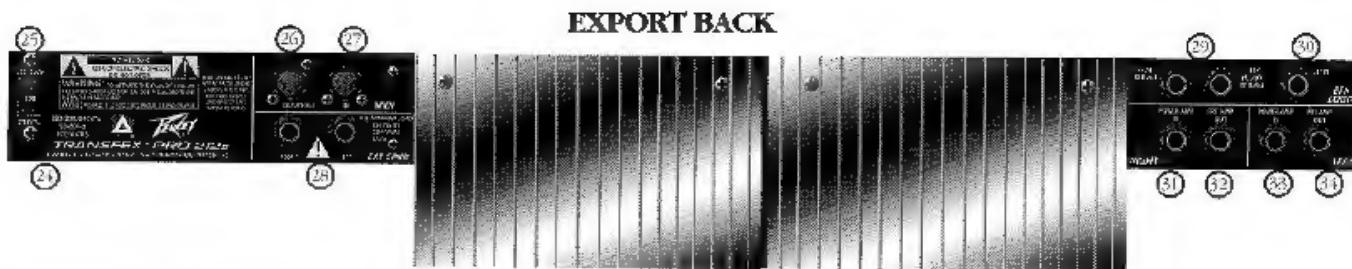
Used to fine tune the high frequency range of the speaker enclosure by varying the damping factor of the amplifier at high frequencies. This control can be set to boost the gain of the power amp in the high frequencies at the presence/attenuation point of the speaker cabinet to offset high-end frequency dropout.

## **22. T. Dynamics Control**

Adjusts the power level of the amplifier from 10 percent to 100 percent power. When set to lower settings, the power compression simulation will be much more pronounced.

## **23. Power Switch**

This switch is used to turn the TransFex on/off. To turn it on, flip the switch to the "on" position.



## THE BACK PANEL

### 24. Line Cord

**!** (120V units only) For your safety, we have incorporated a three-wire line (mains) cable with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the amp without proper grounding facilities, suitable grounding adaptors should be used. Greatly reduced shock hazard exists when the unit is operated with the proper grounded receptacles.

### 25. Ground Switch

Three-position, rocker-type switch, which for most applications should be operated in the center (zero) position. If hum or noise is noticed coming from the speaker with the ground switch in the center position, place the ground switch to positive or negative (+ or -) to minimize hum, should a hum/noise problem continue, consult your authorized Peavey Dealer, the Peavey Factory, or a Qualified Service Technician. **Note:** The ground switch is not functional on 220/240 volt models.

### 26. MIDI Out/Thru

Used to transmit program changes and system exclusive information to an external MIDI device. This also provides the chaining of MIDI-compatible devices. All data received at the MIDI in jack is echoed, unaltered, to this jack, except valid system-exclusive commands that the unit responds to. **Note:** Since valid program change or continuous controller commands the unit receives will be transmitted out of the MIDI out/thru, care should be taken to avoid looping the output back to the input.

### 27. MIDI In

Used to receive MIDI commands and system-exclusive information from an external MIDI device.

### 28. External Speaker Jacks (Stereo)

Provided for connection of Right and Left external speaker cabinets. Minimum external speaker impedance is 8 ohms.

### 29. Left/Mono and Right Effects Loop (Return)

The left/mono and right effects loop returns accept stereo signals from external effects processors. If only one signal is being returned to the TransFex, use the left/mono effects loop return.

### 30. Effects Send

Output for supplying signals to external low-level effects or signal processing equipment.

### 31. Power Amp In (Right)

Used to connect line level signal to the right power amplifier.

### 32. Preamp Out (Right)

The right preamp out can be used to route the amplified signal to a mixing console, tape recorder, etc. or to connect the preamp output using a shielded cable to an input of the tape recorder, mixer, etc. This patch does not affect the operation of the amplifier.

### 33. Power Amp In Out (Left)

Used to connect line level signal to the left power amplifier.

### 34. Preamp Amp Out (Left)

The left preamp out can be used to route the amplified signal to a mixing console.

## **THE FIRST TIME YOU TURN IT ON (REINITIALIZATION)**

This procedure is recommended the first time your TransFex Pro 212s is turned on after purchase from your Peavey dealer. This ensures that the memory is initialized and that the battery is fully charged.

### **WARNING!**

*The following procedure will overwrite all changes made to the unit's memory storage, replacing them with factory settings. Only perform the following if you desire to re-initialize the unit.*

1. While holding both the **▼ (down /dec arrow)** and **▲ right arrow** buttons on the front panel, power up the unit by turning on the power switch.

The unit has now been initialized to factory settings. It is recommended that you leave the unit turned on for at least three hours at this time to ensure the battery has a full charge. The unit's battery should then last several years before replacement is required. The unit will warn you when the battery is getting low.

Battery replacement must be performed at an authorized Peavey Service Center.

## ***Adjusting The Global Input And Output Levels, and Global EQ (Very Important)***

Once the connections are all made, set up the input and output levels of the TransFex Pro 212s as follows:

Turn on the TransFex Pro 212s and press the **Global** button until you get to the **[GLOB]** display; set all level controls to **0**: input level knob on the front of the TransFex Pro 212s, output level knob on the front of the TransFex Pro 212s, and the input level control on your power amp (if it has one).

Adjust the input level control on the front of the TransFex Pro 212s while playing your instrument. The level should be set so that the *Active/Clip* LED just begins to turn red on your absolute loudest playing level.

Then turn on your power amp. Set the input level control on the amplifier to your normal playing level. No sound will be heard from it yet.

Finally, slowly adjust the master level control on the front of the TransFex Pro 212s while playing, until a suitable playing level is reached. Note that the T. Dynamics control must be fully clockwise to achieve full power.

Set the Bass, Mid and Treble levels to taste. These settings are *global*. This is a very handy feature. For example, if you develop your effects at home and then go to a live stage and notice that there is not enough high end in that particular room/stage, all you must do is go to the **[GLOB]** display and adjust the Treble (to taste). This will affect all of your patches.

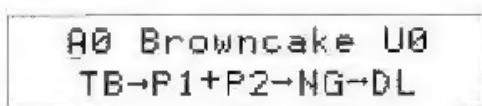
# **Chapter 2 Overview**

## **GETTING STARTED**

After connecting and adjusting the levels on the TransFex Pro 212s, you may wish to preview the sounds before continuing. This short section describes how you can quickly access each of the sounds and gives a brief description of some of the functions of the optional PFC 10 MIDI Foot Controller.

### **Preview the Sounds from the Front Panel**

Pressing the **Play** button twice will always ensure you are in *play mode*. The cursor (short flashing underline) will be under the letter **A**, **B**, or **C** in the top left corner of the display. This letter indicates the **program bank** that is currently selected. (See the section titled, **Setting Up Your Programs**.)



A0 Browncake U0  
TB→P1+P2→NG→DL

The number that immediately follows the program bank, is the **program number**. It is a number between 0 and 127. The name that follows the program number is the **preset name**. Following the preset name is a letter **U**, **F**, or **C** and the **preset number**. This is the **preset** currently being played. The letter indicates which **preset memory bank** this preset is stored in: **U** is for **user** preset memory, **F** is for **factory** preset memory, and **C** is for **cartridge** preset memory.

While the flashing cursor is under the program bank, pressing the **▼** or **▲** buttons will change the program being played. In this manner, you can listen to each one of the 128 presets in the bank. Incrementing above program 127 or decrementing below program 0 will switch to the next program bank.

## **DEFINITIONS AND ABBREVIATIONS**

Before continuing on into the detailed operations of the TransFex Pro 212s, it would be helpful to understand some terms used in describing functions and capabilities of the unit. Also presented here is a reference list of the abbreviations you'll be running across while programming the TransFex Pro 212s.

### **Definitions**

**Preset:** This is the storage location of all parameters pertaining to the sound itself. The preset can be thought of as the effects chain, the settings for all effects in the chain, and the settings of all continuous controllers for that effects chain. Each preset has a name. There are two **preset memory banks** in the TransFex Pro 212s: **factory** and **user**. When new, the user bank is identical to the factory bank; however, as you make changes to the presets or create new presets from scratch, you will be saving these changes in the user memory or the optional RAM cartridge. While you can make changes to the presets in the factory memory, those changes can only be saved to locations in the user memory or the cartridge. The factory presets will at all times be

available unchanged, as they came from the Peavey factory. When a RAM cartridge is installed, a third bank of 128 presets becomes available for play, editing, and storage.

**Program:** A program is what changes when the TransFex Pro 212s responds to a MIDI program change command (such as those sent to the unit from an optional foot controller). Programs are merely pointers to presets. This really comes in handy when setting up your performance. You can arrange your presets into sets and banks so that they can easily be recalled in playing order from the front panel, from an optional foot controller, or via MIDI. The TransFex Pro 212s has two banks of programs inside it: Bank A and Bank B. Each has 128 programs in it, and each of these can be set to recall presets from either user preset memory, factory preset memory, or from the cartridge. The cartridge also provides a third program bank (Bank C).

## Abbreviations

### Effect Types

CM -	Compressor
DS -	Distortion
OD -	Overdrive
CF -	Chorus/Flanger
DL -	Delay
P1 -	Pitch Shift 1
P2 -	Pitch Shift 2
RV -	Reverb
CQ -	'Classic' Equalizer
5B -	5-Band Graphic Equalizer
3B -	3-Band Sweep Mid Equalizer
4B -	4-Band Parametric Equalizer

MX -	Mixer
CT -	Coil Tap
EX -	Exciter
EF -	Envelope Filter
PN -	(Auto) Pan
SS -	Speaker Simulator
ST -	Stereo Simulator
NG -	Noise Gate
FX -	Effects Loop
SP -	Splitter/Biamp
TB -	TransTube Preamp
TR -	Tremolo
RS -	Rotary Speaker
PH -	Phaser

## **CHROMATIC TUNER**

The TransFex Pro 212s comes with a chromatic tuner to allow you to tune your guitar using the front panel display. The tuner is also accessible from the PFC 10 MIDI foot controller.

To access the tuner:

### ▼ Chromatic Tuner

1. From *Play mode*, press the **Global** button one time. The following screen should be displayed:



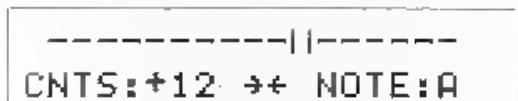
2. Press the **Store/Exec** button to access the **Tuner** or move the cursor under **Mode** to change the Tuner mute status. To change the Tuner mute status, use the ▼ and ▲ buttons to change between **Bypass** and **Muted**.



3. Pressing the **Play**, **Edit** or **Global** buttons will exit the Tuner into one of those particular pages.

**Note:** When entering the Tuner mode, any changes made while editing a preset will be lost unless they are first stored. The tuner is also accessible from the PFC 10 MIDI foot controller.

4. When the Tuner is accessed, you should see a display similar to one of the following:



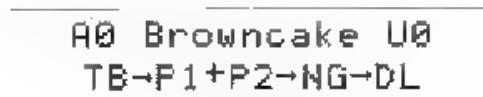
The display on the right shows a note that is, essentially, tuned. The display on the left shows a note that is a little sharp and should be adjusted. Since the bar moves as it tracks the note, the bar far to the left with a cents value of, **CNTS:-12**, would have indicated that the note was flat by 12 cents.

5. To access the tuner from the PFC 10 MIDI footswitch, simply tap the bank/tuner footswitch button twice. The display will mirror the one on the TransFex Pro 212s. When tuning is complete, tap any other patch button to return to play mode.

# **Chapter 3    Editing Presets**

## **PLAY MODE**

Most of the time during performance, the TransFex Pro 212s will be in the **Play** mode. The play mode is accessed by pressing the **Play** button. The TransFex Pro 212s also switches to **Play** mode each time it responds to a MIDI program change command (such as those sent by an optional foot controller). A typical display for **Play** mode is shown below:



A0 Browncake U0  
TB->P1+P2->NG->DL

As described in the quick start section, the first letter **A** in the display (with the flashing cursor under it) indicates that the program being played is in program bank A. The number following it is the program number. The name is the name of the preset which that program points to. The **U** indicates that this preset is stored in user preset memory, and the number is the number of the preset.

On the bottom line of the display are the first five effects in the effects chain. (If the chain is longer than 6 effects, the others will not be shown. In this case, the chain is: **Transtube** preamp in series with the parallel combination of **Pitch Shift 1** in parallel with **Pitch Shift 2**, in series with the **Noise Gate** in series with **Delay**.

**Note:** Lower case letters indicate that the effect has been bypassed.

## **CREATING A CUSTOM MULTI-EFFECT CHAIN**

The first step to creating a custom preset is selecting an existing preset that is similar to it, then changing, adding, or deleting effects until you have the chain you desire. The next step is to edit the parameters of the effects in the chain.

Recall a preset in PLAY mode as described previously. Press the **Edit** button to edit the chain. Delete unwanted effects by moving the cursor under the effect using the **Left and Right arrows**, and pressing the **Add/Del** button. You can change effects to another type by placing the cursor under the effect and pressing the **▲** or **▼** buttons. You can add new effects in the chain by placing the cursor on the PATH INDICATOR (arrow or plus sign) between any two effects and pressing the **Add/Del** button. Effects can also be added at the beginning and end of the chain in the same manner. You can change the path between the two effects. An arrow means that the two effects are in series, a plus sign indicates that the two effects are in parallel. If the two effects are in parallel, the output level must be reduced to prevent clipping later effects. If two effects are in parallel the output level must be reduced by 50%; if three effects are in parallel, the output level must be reduced by 33%, etc. With the cursor under the path indicator, **▲** and **▼** buttons will change the path.

If you are using a Splitter to split the right and left channels into separate effect chains, the left path is on the upper line and the right path is on the lower line. Moving the cursor past the last effect on the upper line will move it down to the first effect on the line.

## **EDITING INDIVIDUAL EFFECT PARAMETERS**

Each effect type has one or more parameters that control the sound of that effect. (See Appendix A for effect details.) To edit the individual effect's parameters, place the cursor under the effect you wish to

edit and press the **Edit** button once. The value of the first parameter and the effect name will appear on the top line of the display. A list of abbreviated effect parameters appear on the bottom line. The cursor will be flashing under the first parameter. Using the **▲** or **▼** buttons will change the value of the parameter. Using the **Right or Left Arrow** buttons will move the cursors to other parameters for editing. By pressing edit again, the display will return to the effects chain display.

## EFFECT LEVEL CONTROL

By placing the cursor under the path between any two effects and pressing the **Edit** button, you will be able to control the output levels of each effect block.

CM → TB → NG → DL

You may now adjust the output level of the effect immediately preceding the cursor position as shown:

[COMPRESSOR]  
OUTPUT LEVEL = 100

Using the **▲** or **▼** buttons, vary the effect level until the desired level is obtained. You can use the **Right or Left Arrow** buttons to switch between the various effect output levels in the chain. When done adjusting the levels, press the **Edit** button again to return to the chain edit screen.

## COMPARING YOUR SOUNDS TO OTHER PRESETS

While in any edit mode, a **Compare** mode is available which will allow comparison between the presets currently being edited and any one of the factory or user presets. Pressing the **Compare** button will toggle in and out of **Compare** mode. Pressing the **▲** or **▼** buttons will allow you to select any preset to compare against. You can now use the **Compare** button to toggle back and forth between the sound you are editing and the chosen preset.

## STORING YOUR PRESET

Press the **Store/Exec** button and the store display will appear.

STORE [Smoothlead ]  
TO U6 Smoothlead

Press the **Right or Left Arrow** buttons until the cursor is under the first letter of the preset name (in brackets).

Using the **▲** or **▼** buttons, change the preset name.

Once the preset name is what you want, you will need to store the preset in a preset location. To do this, press the **Right or Left Arrow** button until the cursor is under the preset number.

Use the ▲ or ▼ buttons to select the new preset location.

**Note:** If you do not want to store your changes over the existing preset, press the **Edit** or **Play** buttons at this time to abort the command.

Press the **Store/Exec** button to store the new preset. The display will briefly show:

STORE COMPLETE  
TO U6 SmoothLead

## MAPPING PRESETS TO PROGRAMS

Any program from any bank can "map" to, or call up, any preset. In performance this is an extremely handy feature. To change which preset is called by the program currently selected, press the **right arrow** button so that the cursor is flashing under the preset name. Use ▼ or ▲ buttons to select the preset you desire to have mapped to this program. Changes are automatically stored, so this is all you have to do. Press the **left arrow** button to select the program, switch to the next program, and set it up by repeating the above steps.

When a RAM cartridge is installed, programs in Banks A or B can be programmed to point to presets stored on the cartridge. If at a later time the cartridge is removed and this program is selected, the display will show:

A2 \*NO CART\* C0  
CM>3B>0D>RU

The sound being played will not change. You should replace the cartridge, or select a new preset for this program.

A third program bank is available on the RAM cartridge. When reprogramming this bank, you must ensure that the **cartridge write protect** is disabled; otherwise you will get the following message:

CARTRIDGE  
WRITE-PROTECTED

The program will not change. For more information on the RAM cartridge, see chapter 5.

## MIDI DYNAMIC EFFECT PARAMETER CONTROL

MIDI dynamic parameter control introduces a vast variety of expression possibilities. This could include changing delay or reverb times, EQ frequencies or gains, effect levels, and many other parameters in real time with any MIDI continuous controller. Each preset in the TransFex Pro 212s has eight selectable controls. These controllers can be assigned to any variable parameters of the available effects within the preset. The MIDI continuous controllers are stored along with the preset.

To edit and assign parameters to continuous controllers, you will use the CNTRL menu. If you are in any edit mode and press the Global button, the CNTRL menu will appear. If you are in Play mode, then you will have to push the Global button several times until the CNTRL menu appears. A typical CNTRL screen might read:

DISTH Drive [CNTRL]
#1 Pram C# Ch Sc

The first number shows which of the eight controllers you are editing. With the cursor flashing under this number, you can use the ▼ or ▲ buttons to view each of the eight controller assignments.

Pressing the **Right Arrow** button one time moves the cursor under the word **PRAM**. The ▼ or ▲ buttons can now be used to select the parameter to be controlled by this controller. Parameters for each of the effects in the chain will appear in turn.

**Note:** If a controller was previously assigned to an effect type that has been deleted from the chain, the controller will still be assigned to that parameter, but will have no effect on the sound. This feature allows you to experiment with different effects in the chain without having to re-assign the controller each time.

Placing the cursor under **C#** on the bottom line allows you to assign a particular MIDI CONTINUOUS CONTROLLER to this parameter. The available controllers are numbers 1-20.

Press the Right Arrow button again. The cursor is flashing under **Ch** for CHANNEL. Each controller may be assigned to receive on any of the sixteen MIDI channels or OMNI. The unit defaults to all controllers set to the unit's RECEIVE (RECV) channel in the MIDI menu.

**SC** is the MIDI Parameter Control Scale Factor. This allows the control range to be adjusted from full range to some percentage of full range.

Here's how the Scale Factor works: MIDI continuous controllers output a value between 0 and 127. The TransFex Pro 212s centers these values around 52 so that, with a scale factor of 100%, a controller output of 0=-100%, 52=0%, and 127=+100%.

MIDI Value:	0	52	127
TransFex Pro 212s:	-100%	0%	+100%

To understand what the Scale feature can do, it is important to understand how continuous controllers affect the parameters to which they are assigned. In the TransFex Pro 212s, continuous controllers vary individual parameters about their programmed value. For example: Reverb mix is variable from 0 to 100. Let's say the mix is set to 50 in the current preset. If a continuous controller is assigned to this parameter, the parameter will be varied about that nominal value. A MIDI controller value of 52, which is in the middle of the range of controller values, will correspond to the programmed value for that parameter in the preset (in this case 50). Controller values above or below 52 will change the value of the affected parameter accordingly. The amount of change is controlled by the Scale factor. The Scale factor is percentage of the total range of values for a specific parameter, and may be set from 0% to 100%. For instance, in the case of the Reverb mix parameter (which has range of 0 to 100), a scale factor of 30% would allow a maximum change of plus or minus 30, since 30% of 100 is 30. With the parameter set to 50, it could be varied from 20 (50 - 30) to 80 (50 + 30). MIDI controller value 0 would result in a mix level of 20. MIDI controller value 52 would result in a mix level of 50 (the programmed value). MIDI controller value 127 would result in a mix level of 80, and all values between 0 and 127 would be scaled accordingly.

Setting the Scale factor to a negative number flips the controller output so that increasing controller values decrease the value of the controlled parameter.

## **VOLUME CONTROL DURING PERFORMANCE**

The TransFex Pro 212s will respond to MIDI volume change messages (controller #7). These changes are global. That is, they affect the unit even after the program is changed. A CV pedal assigned to controller #7 will act as a MIDI volume pedal. You can reassign the volume to a different control number if you wish. Volume can also be controlled from the front panel, but this is not usually done during performance. See chapter 4.

# **Chapter 4    Using MIDI**

There are four major functions that can be performed via MIDI on the TransFex Pro 212s: change Programs/Banks; change effect parameters during performance via Continuous Controller messages; store presets on remote storage devices via MIDI system exclusive messages; and remotely edit and store any user-accessible parameter using special Remote Editing SysEx messages. The TransFex Pro 212s can also be set up to transmit MIDI program change messages when a new program is selected from either the front panel or via MIDI.

## **TRANSMIT AND RECEIVE CHANNELS**

MIDI messages are transmitted and received on one of sixteen different MIDI channels. The unit can be set to transmit messages on any of these channels, and to respond to valid incoming messages on any one or all sixteen channels. To change the channel the unit receives on, press the **Global** button until the MIDI menu appears as below:

Recv Ch=1	[MIDI]
RC TC TP DP LP DS LS	

The cursor is flashing under **RC** (Receive Channel). Use the ▼ or ▲ buttons to select MIDI channel **1-16** or **OMNI**. **OMNI** will allow your unit to respond to valid MIDI commands received on any channel.

To change the MIDI channel the unit transmits on, press the **right arrow** button. The cursor is now flashing under **TC** (Transmit Channel). Use the ▼ or ▲ buttons to select the desired MIDI transmit channel (one through sixteen).

To turn the transmit program change feature on or off, use the **right** or **left arrow** buttons to position the flashing cursor under **TP** (Transmit Program Change). Use the ▼ or ▲ buttons to turn this feature **ON** or **OFF**. When **ON**, Transmit Program change will send a MIDI Program Change message out on the transmit channel each time the program is changed either from the front panel or via MIDI (including changes sent from an optional MIDI foot controller).

The other functions on the MIDI menu are system-exclusive functions and are described in the section titled, **System Exclusive Remote Storage**.

## **MIDI PROGRAM CHANGE AND BANK SWITCHING**

The TransFex Pro 212s will respond to valid *MIDI Program Change* and *Bank Select* messages received on the unit's receive channel. Program changes will cause the unit to recall a program within the program bank currently selected. There are two banks of 128 programs in the unit's memory, Bank A and Bank B. A third bank, C, becomes available when the optional RAM cartridge is installed. Program banks can be changed on the front panel by incrementing the program above 127 or below 0 while in play mode, or by sending a MIDI bank select message to the unit.

The format of the MIDI bank select message is:

B0 00 00 20 00/01/02  
(all numbers in hexadecimal)

where:

- |          |   |   |
|----------|---|---|
| B0 00    | = | MIDI continuous controller 0 (bank select)              |
| 00       | = | bank high byte (always 0)                               |
| 20       | = | MIDI 2 byte data indicator                              |
| 00/01/02 | : | 00 selects Bank A, 01 selects Bank B, 02 selects Bank C |

A MIDI bank select command will tell the unit to switch to a program in the new bank the next time the program is changed either via MIDI program change or from the front panel.

To set up the preset-to-program map, see chapter 2.

## **MIDI CONTINUOUS CONTROLLERS**

Many of the factory presets in the TransFlex Pro 212s have MIDI continuous controllers assigned to them. The controller assignments are set up to take advantage of the *General Purpose Controller* messages transmitted by an optional MIDI foot controller. Continuous controllers make temporary changes to effect parameters depending upon the value of the controller message received. These changes are only made in the DSP and not in Preset memory or the edit buffer. Continuous controllers are not intended for sound editing, but only for variation during performance. For a description of how to assign controllers to effect parameters, see chapter 3.

## **MIDI VOLUME CONTROL**

The TransFlex Pro 212s responds to *MIDI Volume* (controller 7) commands on its receive channel. You may turn this function on or off, change the controller that volume responds to, change the response scale, or manually change the global volume level. These functions are performed on the Volume menu under the **Global** button.

Press the **Global** button several times until the volume menu appears as below:

VOLUME = 100	[VOL]
midi:OFF #7	Sc=+50

With the cursor flashing under the volume level, use the ▼ or ▲ buttons to adjust the volume. This volume level affects all presets and remains the same even while changing from one preset to another. That's why we refer to it as the *global* volume.

To turn the MIDI volume feature **ON**, press the **right arrow** button to move the cursor under **midi:OFF** on the bottom line of the display. Use the ▼ or ▲ buttons to turn MIDI volume **ON** or **OFF**.

To change the controller number to which the volume responds, place the cursor under the # sign on the bottom line, and use the ▼ or ▲ buttons to select a new controller number.

The MIDI Scale can change the range of volume affected by the controller. A Scale of +50 will give you full-range control. To vary this, place the cursor under **SC** for scale and use the ▼ or ▲ buttons.

## MIDI SYSTEM-EXCLUSIVE REMOTE STORAGE

The TransFex Pro 212s can utilize MIDI System-Exclusive (SysEx) to store and reload presets on a remote MIDI storage device, such as a Peavey MIDI Librarian™, MIDI Streamer™, DPM® 3, or other sequencer or computer equipped with MIDI and the appropriate software. The TransFex Pro 212s can dump *all* the user presets, *sets* of ten presets, or *individual* presets. When reloading sets or individual presets, they can be loaded back to where they originated or into any other set or preset location. Presets can even be reloaded directly into the edit buffer.

MIDI SysEx functions are in the MIDI menu under the **Global** button. Press the **Global** button several times until the MIDI menu appears.

Recv Ch=1	[MIDI]
RC TC TP DP LP DS LS	

To dump a single preset to an external storage device (or another TransFex Pro 212s): In the MIDI menu display press the **right** or **left arrow** button until the cursor is under **DP** (Dump Preset).

DUMP Prst U1 +EXEC+
RC TC TP DP LP DS LS

Use the ▼ or ▲ buttons to select the preset(s) (**1-128**, **Prst All**, or **Edit Buf**) to be dumped. Press the **Store/Exec** button to execute the dump. The display will briefly show:

SYSEX DUMP
in Progress

**Note:** The MIDI transmit channel of the TransFex Pro 212s must be set the same as the MIDI receive channel on the external device unless the external device is set to OMNI.

The TransFex Pro 212s can also dump sets of presets. The sets are arranged as follows:

Set 0	0-9
Set 1	10-19
Set 2	20-29
Set 3	30-39
Set 4	40-49
Set 5	50-59
Set 6	60-69
Set 7	70-79
Set 8	80-89
Set 9	90-99
Set 10	100-109
Set 11	110-119
Set 12	120-127

To dump a set of presets to an external device (or another TransFex Pro 212s): In the MIDI menu display, press the **right** or **left arrow** button until the cursor is under **DS** (Dump Set).

DUMP Set	U1	→EXEC←				
RC	TC	TP	DP	LP	DS	LS

Use the **▼** or **▲** buttons to select the set (**0-12**) to be dumped. Press the **Store/Exec** button to execute the dump. The display will briefly show:

SYSEX DUMP
in progress

**Note:** The MIDI transmit channel of the TransFex Pro 212s must be set the same as the MIDI receive channel on the external device unless the external device is set to OMNI.

## **LOADING SETS OR PRESETS TO THEIR ORIGINAL LOCATIONS**

To load sets or presets to their original locations from an external storage device or another TransFex Pro 212s, set the MIDI receive channel to match the MIDI send channel on the external storage device (or other TransFex Pro 212s). Then send the set or presets to the TransFex Pro 212s. That's all there is to it!

**Note:** See the owner's manual of the storage device for instructions on sending MIDI dumps.

## **LOADING SETS OR PRESETS TO NEW LOCATIONS**

To load sets or presets to a new location, set the MIDI receive channel to match the MIDI send channel on the external storage device or TransFex Pro 212s. Then select **LP** (Load Preset) if loading a preset to a new location or **LS** (Load Set) if loading a set to a new location. Select the new location. Then send the preset or set to the TransFex Pro 212s.

**Note:** The MIDI receive channel of the TransFex Pro 212s must be the same as the channel the data was *originally* transmitted on. An error message will appear if they are not the same. If this occurs, set the receive channel to the channel shown in the message and transmit again.

## **REMOTE EDITING USING MIDI SYSTEM-EXCLUSIVE**

A set of special system-exclusive editing commands is available on the TransFex Pro 212s. This will allow remote programming of all effect parameters, effect levels, the effects chain, and continuous controller assignments. The edit buffer can also be stored in any user preset location remotely. These changes can be heard immediately, but will not appear on the screen unless the parameter being edited is currently selected. See **Appendix B** for complete remote editing command information for programmers of remote editing devices or software.

# **Chapter 5 RAM Cartridge**

The optional RAM Cartridge acts as a memory extension for the storage of 128 additional presets. Presets can be accessed individually, and played directly off the RAM cartridge without the need to move them into internal user memory. The 128 additional programs appear as Program Bank C and can be set up to point to any preset in cartridge, user, or factory preset memory.

**Note:** The RAM cartridge menus are accessed through the **Global** button.

## **INITIALIZING NEW CARTRIDGES**

RAM Cartridges are sold separately by your Peavey Dealer. Ask for the *Cache Card 32* part #71023. When new, cartridges must be initialized for use with the TransFex Pro 212s. To do this, press the **Global** button until you get to the CART menu. Place the cursor under **In** (Initialize), and press the **Store/Exec** button.

### **WARNING**

*Initializing the RAM Cartridge will overwrite all current data on the cartridge with the user presets.*

## **SAVING PRESETS ON THE CARTRIDGE**

Presets may be stored individually to the cartridge by using the normal store procedure, or all user presets may be saved on the cartridge by using the **Save User -> Cart** function on the CART menu. This function also writes Program Bank A into the Program Bank C, converting all pointers to user presets into pointers to cartridge presets in the process.

## **LOADING PRESETS FROM THE CARTRIDGE**

Cartridge presets may be recalled individually from the cartridge to the edit buffer, or all presets may be loaded to user preset memory by using the **Load Cart -> User** function on the CART menu. This function also writes program bank C into program bank A, converting all pointers to cartridge presets into pointers to user presets in the process.

## **CARTRIDGE BATTERY**

Most cartridges have a replaceable backup battery which maintains memory storage while the cartridge is removed from the unit or the unit is turned off. The battery will last from two to five years depending on the model. If the battery becomes low, the unit will warn you by periodically displaying the following screen:

<b>CRUTION</b>
<b>Cart. Battery Low</b>

**Note:** If this message is displayed, you should back up your cartridge data immediately, then replace the battery and restore the backed-up data to the cartridge.

# Tutorials

Here are several of the most common functions performed with the TransFex Pro 212s in tutorial form.

## Editing and Storing a Preset

Why edit a preset? While we try to provide presets that kick a...uh, that is, are useful, sometimes it is necessary to adjust parameter settings to achieve the sound you are looking for. The easiest way to do this is to edit an existing preset and store it to a user location (since the factory presets are "read-only"). Initially you may notice that the factory presets and the user presets look identical—they are. They are also identical whenever the TransFex Pro 212s is initialized. This is because the TransFex Pro 212s copies all the factory presets to the user preset locations when initialized. So if you don't want to lose your presets, we suggest you save them via MIDI. The **MIDI Streamer™**, a MIDI Data Storage Processor from Peavey, is an excellent choice for doing this.

Keep in mind that while editing any preset, the five controller knobs can be used to tweak the tone, or gain of the TransTube preamp. The **Mode** switch allows you to change the preamp from Clean, to Crunch, Lead, or Ultra. In fact, if you simply want to edit the tone or gain of a preset, you don't even have to go into Edit mode--just turn the knobs until you're happy, and press the **Store** button to store the patch. For more hints on the preamp's editing, refer to Appendix A—Individual Effects.

1. Press the **Play** button and use the **▼** and **▲** buttons to select the preset you want to edit. The preset name/number in this example is **SmoothLead U6**.

A6 SmoothLead U6  
CM→TB→NG→DL

2. Press the **Edit** button one time. By using the **Add/Del** Button, you can remove effects from the chain or add effects. By positioning the cursor on arrows or "+" signs, and using the **▼** and **▲** buttons, you can change from series to parallel connection of effects. Also, if the **Edit** button is pressed while the cursor is positioned on an arrow or "+" sign, the output level of the effect can be adjusted. This can be helpful in preventing the overdriving of one effect into another.

CM→TB→NG→DL

3. Position the cursor under the effect you want to edit. Use the **left** and **right arrow** buttons to move the cursor.
4. Press the **Edit** button again.

Atk= X Fast [COMPRS]  
Atk Rel Sus Lev Ngt

5. Position the cursor under the parameter you want to change. Use the **left** and **right arrow** buttons to move the cursor.

6. Change the value using the ▼ and ▲ buttons. (Go ahead, experiment!)
7. Repeat steps 3 through 6 until all changes are made.
8. Now it's time to store the changes you made (you don't want to lose your changes, do you?).
9. Press the **Store** button.

**STORE [SmoothLead]  
TO U6 SmoothLead**

10. From this display it is possible to change the name of the preset and set the storage location.
11. To change the name: Press the **left arrow** button until the cursor is under the first character of the name, then use the ▼ and ▲ buttons to change the character.
12. To change the storage location: Press the **left arrow** button until the cursor is under the storage location, then use the ▼ and ▲ buttons to select the new user storage location.
13. That's it! You have just successfully edited and stored a preset. Congratulations!

### **Program Mapping**

Program mapping is a convenient system that allows you to call up any of the internal user and factory presets (and external presets with optional ram cartridges) when any particular MIDI program change is sent. For example, you could set up MIDI program change 0 to correspond to preset U0 (user 0), then MIDI program change 1 to correspond to preset F6 (Factory 6), then MIDI change 2 to also correspond to preset F6, then MIDI program change 3 could correspond to preset U3 (simply by not changing it), and so on. This way you don't have to make copies of patches in order to call them up with more than one MIDI program change.

Another useful feature of program mapping is that you can now edit every occurrence of a preset in the whole program map scheme; in other words, if you had your favorite patch as preset U0, and you had it mapped to programs A0, A10, A20, A30 (so it was the first program in each bank) and you decided to change it, all you'd have to do is change it once. Then all the other mapped occurrences would be changed, as well.

A Program Map is simply a diagram that points from a **program** (such as, A1) to a **preset** (for instance, **DualGuitar U1**). When new, or reinitialized, the TransFex Pro 212s restores the Program Map to the factory default settings, where the program number corresponds one-to-one with the preset number (e.g., A0=U0...A50=U50, etc.)

The following tutorial should help to illustrate the usefulness of the Program Map.

Suppose you have the following presets that you use all the time and you want to be able to have quick access to them from the front panel of the TransFex Pro 212s:

<b>Program#</b>	<b>Current Preset</b>	<b>Desired Preset</b>	<b>New Preset's Current Program #</b>
A0	Browncale U0	Grays U22	A22
A1	KleenKorus U1	cPhazeLee U20	A20
A2	The Bosman U2	SmoothLead F6	B6
A3	Fingerpick U3	SmoothLead F6	B6

1. Press the **Play** button. This places you in the play mode. In this mode you can view both the program number and the preset name/number on one screen. For instance:

A0 Browncake U0  
TB→P1+P2→NG→DL

*Cursor under Program Number*

A0 Browncake U0  
TB→P1+P2→NG→DL

*Cursor under Preset Name & Number*

2. Press the **right arrow** button one time to place the cursor under the preset name. This leaves you in program number **A0**, but allows you to change the preset name/number assigned to A0.

A0 Browncake U0  
TB→P1+P2→NG→DL

3. Use the **▼** and **▲** buttons to change **Browncake U0** to **Grays U22**. At this point you are telling the TransFex PRO 212s, "I want to stay in program number **A0**, but I want to change the preset that program number **A0** calls up from **Browncake U0** to **Grays U22**."

A0 Grays U22  
TB→NG→P1

4. Press the **left arrow** button one time to place the cursor under the program number. (Notice that when the cursor is under the program number, both the program number and the preset name/number change when either the **▼** or **▲** button is pressed.)

A0 Grays U22  
TB→NG→P1

5. Press the **▲** button one time to move to program number **A1**. This is like saying —"Okay, I'm through with program number **A0**, now I want to go to program number **A1** and assign a preset to it."

A1 KleenKorus U1  
TB→P1→CF

6. Press the **right arrow** button one time to place the cursor under the preset name.

A1 KleenKorus U1  
TB→P1→CF

7. Use the **▼** and **▲** buttons to change **KleenKorus U1** to **cPhazeLee U20**.

A1 cPhazeLee U20  
PH→TB

8. Press the **left arrow** button one time to place the cursor under the program number.

A1 cPhazeLee U20  
PH→TB

9. Press the **▲** button one time to move to program number **A2**.

**A2 The Bosman U2**  
**TB→NG→P1→RV**

10. Press the **right arrow** button one time to place the cursor under the preset name.

**A2 The Bosman U2**  
**TB→NG→P1→RV**

11. Use the **▼** and **▲** buttons to change **The Bosman U2** to **SmoothLead F6**.

**A2 SmoothLead F6**  
**CM→TB→NG→DL**

12. Press the **left arrow** button one time to place the cursor under the program number.

**A2 SmoothLead F6**  
**CM→TB→NG→DL**

13. Press the **▲** button one time to move to program number **A3**.

**A3 FingerPick U3**  
**TB→PH→SP→DL→RV**

14. Press the **right arrow** button one time to place the cursor under the preset name.

**A3 FingerPick U3**  
**TB→PH→SP→DL→RV**

15. Use the **▼** and **▲** buttons to change **FingerPick U3** to **SmoothLead F6**.

**A3 SmoothLead F6**  
**CM→TB→NG→DL**

16. Congratulations! You are now a Program Mapping pro. (Okay, maybe you're not a pro yet, but at least you're familiar with program mapping.)

### Assignable Clip LED

After you've written a new preset, if you notice that the clip LED changes from green to red, or if you hear a crackly, edgy distortion, this may indicate an overload problem somewhere in the effects chain. No problem! Push the **Global** button until the following screen appears:

**Bypass Modes: DIRECT**  
**By VA Mtr**

Move the cursor under **Mtr** and by using the **▲** and **▼** buttons you can move the clip LED to the output of each segment of the effects chain. As you move the clip LED, play your instrument and watch the clip LED. It will stay green for the effects that have correct output levels, but will turn red when you find the effect, input or output that is overloading. If the LED barely flickers red, it's probably OK; if it stays bright red, it probably indicates digital clipping. Once you locate the problem, simply press the **Edit** button and adjust the effect or its output level to fix the overload. One obvious place to look is after paralleled effects to ensure that their output levels have been reduced to 50 if there are 2 effects, 33 if there are 3, etc.

### **Global Stuff: Utility, MIDI and Controller Screens**

These mini-tutorials provide instruction on several of the most common global settings for the TransFex Pro 212s. Each mini-tutorial is independent of the previous mini-tutorials. This allows you to learn what you want when you want to and proceed without wondering if you missed anything in a previous mini-tutorial!

#### *Setting the View Angle*

1. Press the **Global** button until the following screen is displayed:

Bypass Mode: DIRECT
By VA Mtr

2. Position the cursor under **VA**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to adjust the display to a comfortable viewing angle.

#### *Setting the MIDI Receive Channel*

1. Press the **Global** button until you get to the MIDI screen.

Recv Ch=1 [MIDI]
RC TC TP DP LP DS LS

2. Position the cursor under **RC**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to change the channel over which MIDI messages are received.

#### *Setting the MIDI Transmit Channel*

1. Press the **Global** button until you get to the MIDI screen.

Xmit Ch=2 [MIDI]
RC TC TP DP LP DS LS

2. Position the cursor under **TC**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to change the channel over which MIDI messages are transmitted.

### Dumping a Preset

1. Press the **Global** button until you get to the MIDI screen.
2. Position the cursor under **TC**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to change the channel over which MIDI messages are transmitted. (Make sure the receiving unit is set to receive on the channel selected.)

Xmit Ch=2 [MIDI]
RC TC TP DP LP DS LS

3. Position the cursor under **DP**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to select the preset to dump via MIDI.

Dump Prst U3 →EXEC←
RC TC TP DP LP DS LS

4. Press the **Exec** button to send the preset. The following display is shown:

SYSEX DUMP
in progress

### Loading a Preset (to a new location)

(Loading a preset to its original location does not require a procedure. Simply send the preset from the transmitting unit. The TransFex Pro 212s will automatically store it in its original location.)

1. Press the **Global** button until you get to the MIDI screen.
2. Position the cursor under **RC**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to change the channel over which MIDI messages are received. (Make sure the sending unit is set to transmit on the channel selected.)

Recv Ch=1 [MIDI]
RC TC TP DP LP DS LS

3. Position the cursor under **LP**, using the **right** or **left arrow** button. Use the **▼** and **▲** buttons to select the preset to receive via MIDI.

Load Prst U8
RC TC TP DP LP DS LS

4. Now send the preset to the TransFex Pro 212s from the transmitting unit. You should see the following display:

SYSEX DUMP
in progress

If you see:

### IGNORING SYSEX on channel 3

You need to:

- Set the receive channel on the TransFex Pro 212s to the MIDI channel shown in the display.
- Send the preset again from the transmitting unit.

## HOW TO SET UP A CONTINUOUS CONTROLLER

For this example, let's walk through the steps required to create a "wah wah" effect using a continuous controller pedal. Assuming you have a continuous pedal hooked up to the TransFex Pro 212s via a MIDI foot controller, first select or write a patch that has the envelope filter (**EF**) effect and store it. Then push the **Edit** button, select **EF** and push the **Edit** button again. Next, push the **Global** button until the following screen is displayed:

Recv Ch=1	[MIDI]
RC TC TP DP LP DS LS	

Move the cursor under **RC** and use the ▼ and ▲ buttons to select channel **1**. For this example, we will assume your foot controller has channel 7 as a continuous channel send. Next push the **Global** button until the following screen is displayed:

ENUFLT Freq [CNTRL]
#1 Pram C# Ch Sc

Move the cursor under **Pram** and use the ▼ and ▲ buttons to select **Freq**. Next move the cursor under **C#** and select **Ctrl#=7**. Next move the cursor under **Ch** and select **RCV**. Next move the cursor under **Sc** and select **+100**. It is important to note that the scale can be set from ±100 allowing normal or reverse wah wah effects. You can set the scale anywhere in between to adjust the effect to your tastes. Next press the **Edit** button and move the cursor under **Sn** and select a sensitivity level. Try **+48** to start. Next move the cursor under **Fq** and select a frequency (try **50**). Next move the cursor under **Rs** and set the resonance (try **52**). Next move the cursor under **Ty** to select a filter (try **LP-Slo**). Next move the cursor under **Mx** and try a mix level of **50%**. Now work the continuous controller pedal to try the effect. Adjust the envelope filter parameters and the scale to suit your taste. Press the **Store** button to save the settings and continuous controller to your preset.

**Note:** If you get volume control instead of wah wah, push the **Global** button until the following screen is displayed:

VOLUME=100	[VOL]
midi:ON #7 Sc=+54	

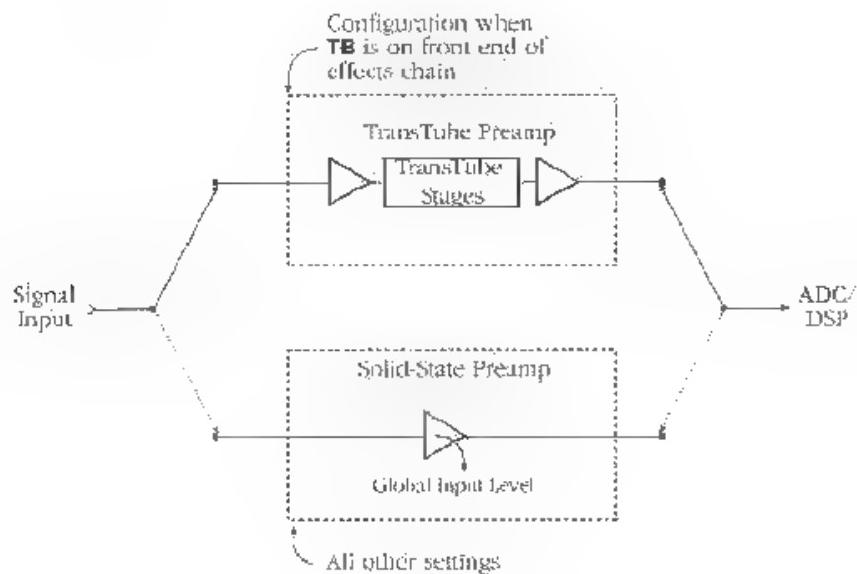
Move the cursor under **midi** and change the setting to **OFF**. Now try your effect. You can also use the 4-band parametric EQ to create this effect.

# Appendix A Individual Effects

## TransTube (TB)

The TransTube effect uses the patented Transtube technology to alter the audio signal in a more traditional manner. The TransTube effect has four modes (or voices) to select from. These are accessed by using the **Mode** button.

**Note:** To change the TransTube mode, you must be in Play Mode (accessed by pressing the **Play** button), Edit Mode (accessed by pressing the **Edit** button), or the TransTube page (accessed when you press the **Edit** button a second time to begin editing the TransTube parameters).



**Note:** The Global Input Level is non-functional when the Transtube (TB) is at the front of the effects chain.

- ↳ **CLEAN** Two gain stages and a passive EQ to achieve clean to slightly distorted tones.
- ↳ **CRUNCH** Three gain stages and a passive EQ for medium distortion amounts.
- ↳ **LEAD** Four gain stages and a passive EQ for high gain distortion.
- ↳ **ULTRA** Same as Lead, except with active EQ, allowing for greater tonal variation.

### Parameters

- P<sub>r</sub>:** The **P<sub>r</sub>** (Pregain) parameter adjusts the amount of gain the signal has before entering the preamp. Range is **0-100**. When **TB** is present in a chain, turning the **Pre Gain** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- P<sub>d</sub>:** The **P<sub>d</sub>** (Pad) parameter changes gain of the first TransTube stage without effecting tone. Select either **Hi** (for distortion) or **Lo** (for clean).
- P<sub>t</sub>:** The **P<sub>t</sub>** (Postgain) parameter adjusts the amount of gain the signal has as it leaves the preamp. Range is **0-100**. When **TB** is present in a chain, turning the **Post Gain** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.

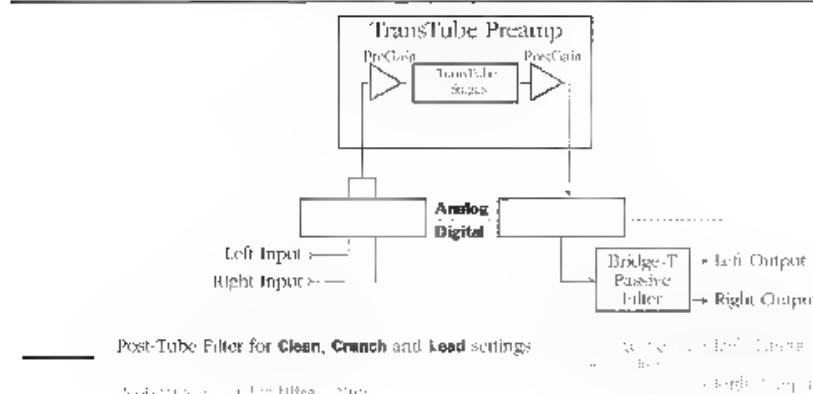
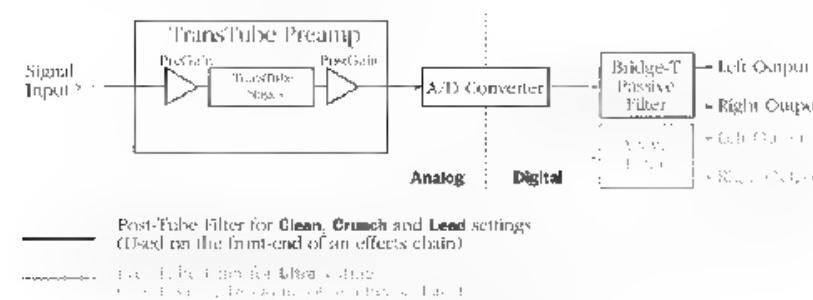
**Note:** The previous three parameters apply to all four TransTube modes; however, the following four parameters (**Bs**, **Mi**, **Tr**, **Ps**) change to **Bt**, **Bd**, **Sd**, **Sh**, respectively, when **ULTRA** is selected as the mode.

### Clean, Crunch, Lead parameters (Passive EQ)

- Bs:** The **Bass** (Bass) parameter adjusts the amount of low frequencies present in the audio signal. Range is **0-100**. When **TB** is present in a chain, turning the **Bass** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Mi:** The **Mid** (Middle) parameter adjusts the amount of midrange frequencies present in the audio signal. Range is **0-100**. When **TB** is present in a chain, turning the **Mid** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Tr:** The **Treble** (Treble) parameter adjusts the amount of high frequencies present in the audio signal. Range is **0-100**. When **TB** is present in a chain, turning the **Treble** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Ps:** The **Presence** (Presence) parameter determines the amount of high frequency boost or cut. Range is **±30**.

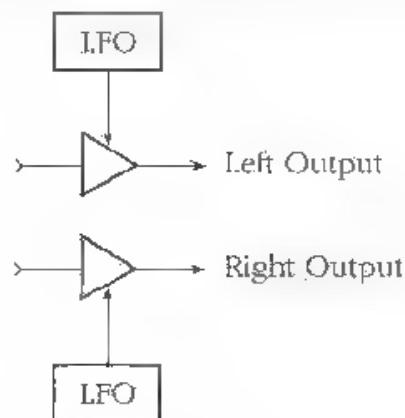
### Ultra parameters (Active EQ)

- Bt:** The **Bottom** (Bottom) parameter adjusts the amount of low frequencies present in the audio signal. Range is **±50**. When **TB** is present in a chain, turning the **Bass** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Bd:** The **Body** (Body) parameter adjusts the amount of midrange frequencies present in the audio signal. Range is **±50**. When **TB** is present in a chain, turning the **Mid** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Ed:** The **Edge** (Edge) parameter adjusts the amount of high frequencies present in the audio signal. Range is **±50**. When **TB** is present in a chain, turning the **Treble** knob will alter this parameter's value even if you are not directly editing the **TB** parameters.
- Sh:** The **Shift** (Shift) parameter determines the center of the two mid-frequency bands. Range is **300Hz to 900Hz** in 10 Hz increments.



## **Tremolo (TR)**

The stereo Tremolo effect is the traditional amplitude modulated effect, with the exception of allowing independence between left and right channels.

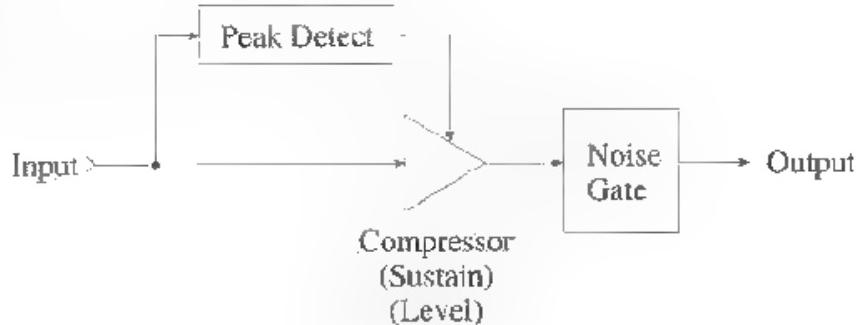


### **Parameters**

- Lsp:* The **Lsp** (Left Speed) parameter adjusts the speed of the left modulator. Range is **0.0-10.9Hz** in increments of 0.1 Hz.
- Lin:* The **Lin** (Left Intensity) parameter determines the amount of left signal being modulated. Range is **0-100%**.
- Rsp:* The **Rsp** (Right Speed) parameter adjusts the speed of the right modulator. Range is **0.0-10.9Hz** in increments of 0.1 Hz.
- Rin:* The **Rin** (Right Intensity) parameter determines the amount of right signal being modulated. Range is **0-100%**.

## **Compressor (CM)**

The Compressor effect suppresses high input levels while boosting small signal levels as the input decreases. The net result is a more consistent output volume and increased sustain.

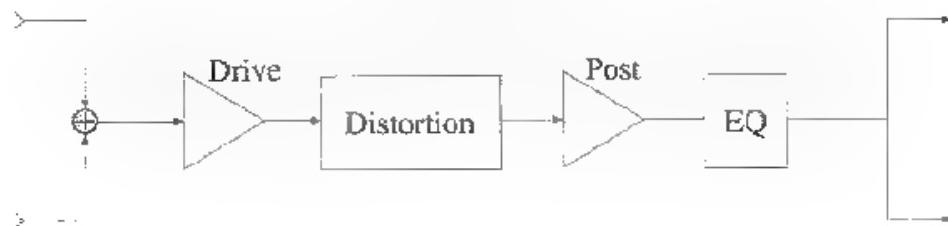


### **Parameters**

- Atk:* The **Atk** (Attack) parameter adjusts the speed at which the compressor responds to increases in signal level. Range is from **X Slow** to **X Fast**.
- Rel:* The **Rel** (Release) parameter adjusts the time for the output signal to decay. Range is from **X Slow** to **X Fast**. Setting the release to **X Fast** results in a very rapid decay, while setting the release to **X Slow** results in a very slow decay.
- Sus:* The **Sus** (Sustain) parameter provides seven levels of sustain to vary the maximum amount of gain that can be achieved by the compressor at small signal levels. Range is **0-6**.
- Lev:* The **Lev** (Level) parameter adjusts the maximum output of the compressor. Range is **0-100%**.
- NgT:* At low signal levels, a compressor's gain may be very high, thus raising the level of noise output with no signal present. The **Ngt** (Noise Gate Threshold) parameter provides ten levels of noise suppression on the output. Range is **1-10**.

## **Distortion (DS)**

The Distortion effect consists of a digital distortion followed by an equalizer section. This is a mono effect.



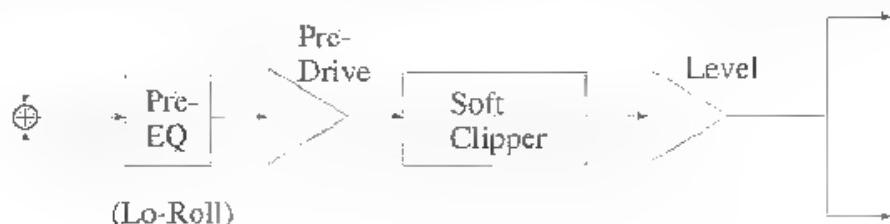
### **Parameters**

- Dr:* The **Dr** (Drive) parameter controls the amount of distortion by pre-filtering and boosting the input signal. Range is **0-100**.
- Ps:* The **Ps** (Post Gain) parameter is used to reduce the signal level to prevent overdriving the EQ section of the effect. Range is **0-100**.
- Ft:* The **Ft** (Fat) parameter controls the low frequency gain. Parameter range **±50**.
- Ed:* The **Ed** (Edge) parameter controls the high frequency gain. Range is **±50**.
- Bd:* The **Bd** (Body) parameter controls the mid frequency gain. Range is **±50**.

- Sb:* The **Sh** (Shift) parameter is used to select the center point of the mid frequency range. The shift frequency is adjustable from **300 Hz** to **900 Hz** in 10 Hz increments.
- Rs:* The **Rs** (Resonance) parameter adjusts the bandwidth of the midrange frequency. Range is **0.1** to **4.9**.

### *Overdrive (OD)*

The Overdrive effect consists of an overdrive type digital distortion. Overdrive is a mono effect.



### Parameters

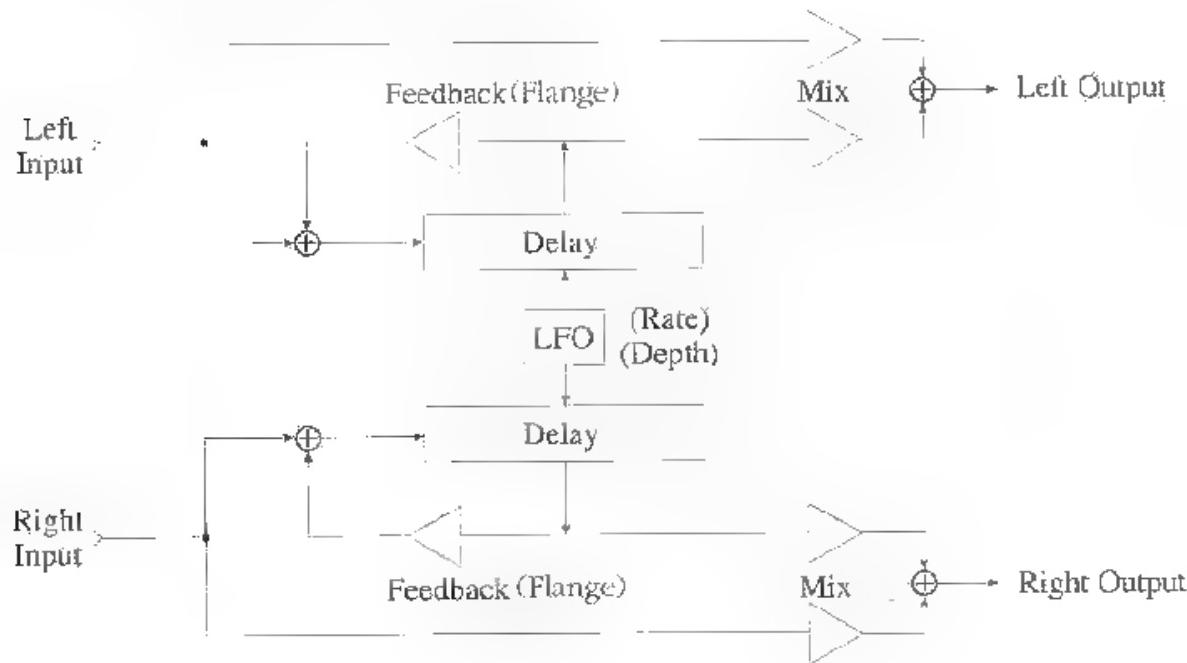
- LR:* The **LR** (Low Rolloff) parameter is used to adjust the overall tone by rolling off the low frequencies. Range is **NORML**, and **0.1** to **1.9** (kHz).
- PD:* The **PD** (Pre Drive) parameter is a gain control used to overdrive the signal. Range is **1-10**.
- Cl:* The **Cl** (Clip) parameter is a "soft-clipping" control which provides increased sustain. Reducing the clip level increases the sustain. Range is **0-99**.

**Note:** As the clip level is reduced, the overall output level of the overdrive is reduced. Therefore, very low clip levels will require a large increase in output volume. This can greatly decrease the dynamic range of the effect and increase noise.

- Lv:* The **Lv** (Level) parameter adjusts the output level of the Overdrive effect. Range is **0-100%**.

## Chorus/Flanger (CF)

The versatile Chorus effect allows for generation of all the common modulated effects (Chorus, Flange, Doubling) and many uncommon effects. The Chorus effect can create a stereo effect from a mono input, or maintain the stereo integrity of a stereo input.



### Parameters

- Rt:** The **Rt** (Rate) parameter controls the chorus rate. Range is **0-9.9 Hz**.
- Dp:** The **Dp** (Depth) parameter controls the chorus depth. Range is **0-100%**.
- Dl:** The **Dl** (Delay) parameter controls the width of the Chorus modulation. Range is **0-28.9 ms**.
- Fb:** The **Fb** (Flange) parameter is used to create flange effects. Range is **±99**.
- Mix:** The **Mix** (Mix) parameter sets the direct/effect mix. Range is **±100**.

### Some setting examples:

To produce a **Chorus** effect, try setting:

- Rt:** 1.4 Hz
- Dp:** 31%
- Dl:** 3.0 ms
- Fb:** +0
- Mix:** +50

To produce a **Doubling** effect, try setting:

- Rt:** 2.1 Hz
- Dp:** 13%
- Dl:** 15.8 ms
- Fb:** +11
- Mix:** +69

To produce a **Flange** effect, try setting:

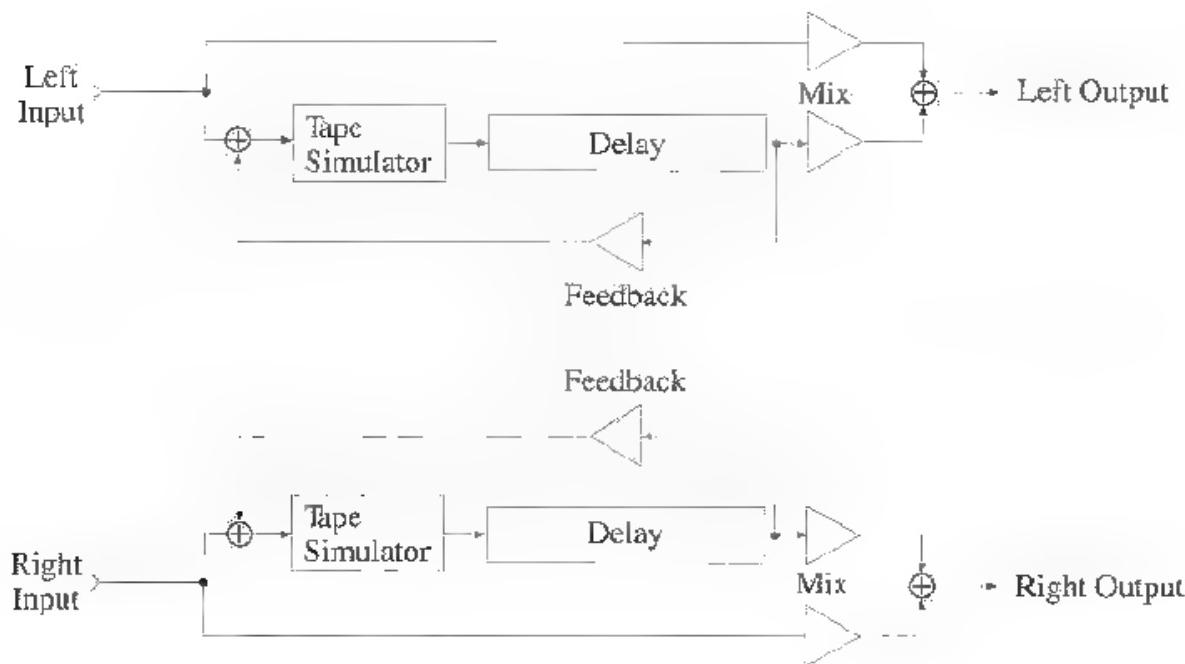
- Rt:** 0.1 Hz
- Dp:** 100%
- Dl:** 6.1 ms
- Fb:** +42
- Mix:** +43

## ***Delay (DL)***

The TransFex Pro 212s offers three types of delays: Stereo, Tapped, and Mono. Each of these delays offers the ability to set the delay time using a special MIDI Sync Delay feature. The Left and Right delay times can be set independently to track MIDI clock messages.

### **Stereo Delay**

A true stereo delay, with delay times from 0 to 255 clks (if using the MIDI sync feature) or 0 to 361 ms (if using a normal delay.)

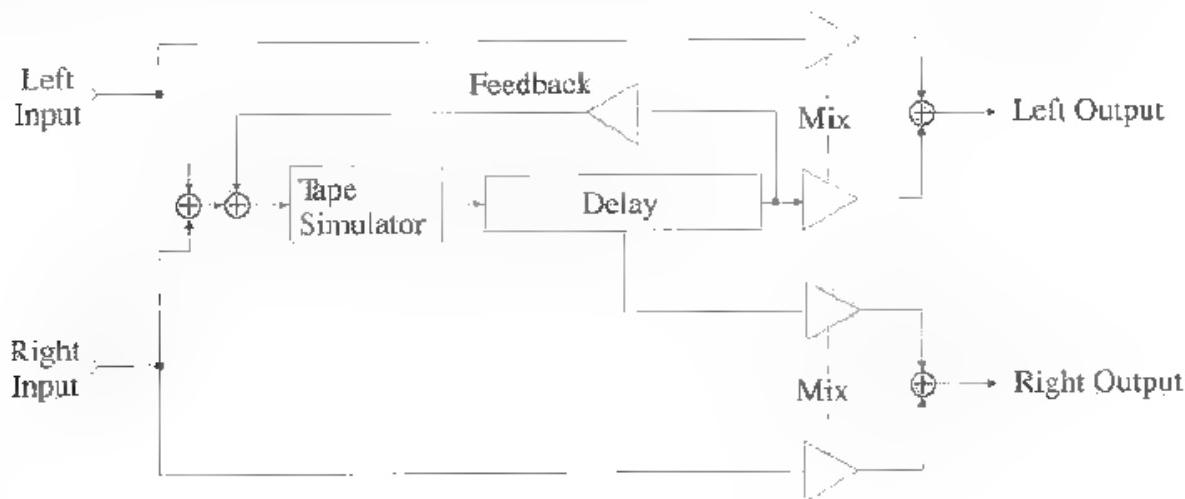


### **Parameters**

- Ty:** The **Ty** (Type) parameter selects the type of delay desired. Select **STEREO**, **TAPPED**, or **MONO**. The parameters will change depending on the type of delay selected.
- LD:** The **LD** (Left Delay) parameter selects the amount of delay on the left channel. Range is **0-361ms**.
- LF:** The **LF** (Left Feedback) parameter selects the amount of delay feedback on the left channel. This generates a repeating or echoing sound. Range is **0-99%**.
- RD:** The **RD** (Right Delay) parameter selects the amount of delay on the right channel. Range is **0-361ms**.
- RF:** The **RF** (Right Feedback) parameter selects the amount of delay feedback on the right channel. This generates a repeating or echoing sound. Range is **0-99%**.
- TS:** The **TS** (Tape Simulator) parameter is used as a low pass filter before the signal is put through the feedback circuit. This feature is used to simulate a warmer, more realistic room sound. Range is **1K, 2K, 4K, 8K, or OFF**.
- Mx:** The **Mx** (Mix) parameter sets the direct/effect mix. Range is **±100**.

## **Tapped Delay**

This delay creates a stereo delay from a mono source. The range is from 0 to 255 clks (if using the MIDI sync feature) and 0 to 724 ms (if using a normal delay.)

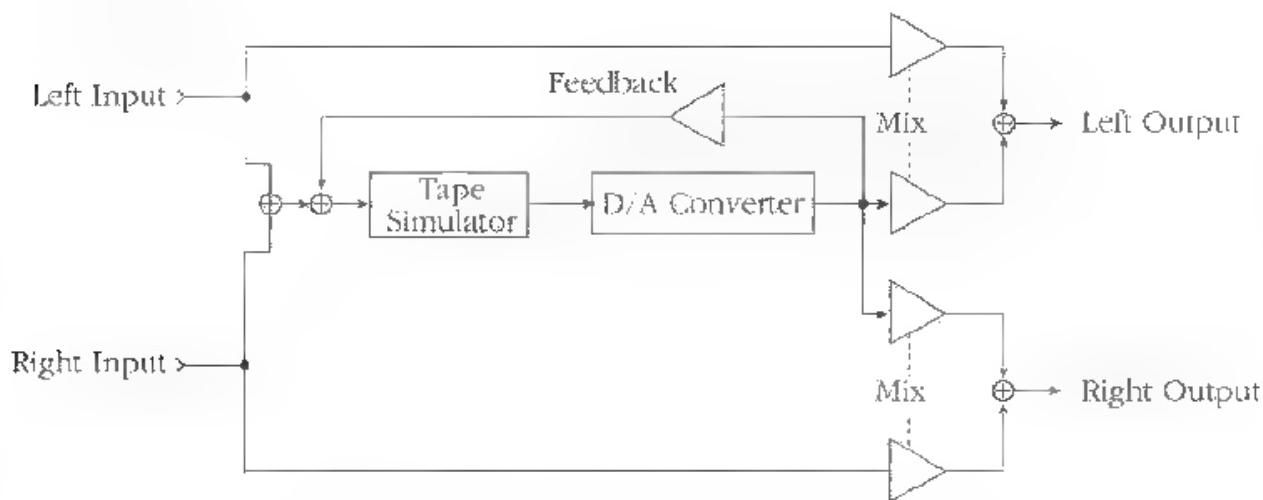


## **Parameters**

- Ty:** The **Ty** (Type) parameter selects the type of delay desired. Select **STEREO**, **TAPPED**, or **MONO**. The parameters will change depending on the type of delay selected.
- LD:** The **LD** (Left Delay) parameter selects the amount of delay on the left channel. Range is **0-255clks** when using the MIDI Sync feature or **0-724ms** using normal delay.
- RD:** The **RD** (Right Delay) parameter selects the amount of delay on the right channel. Range is **0-255clks** when using the MIDI Sync feature or **0-724ms** when using normal delay.
- Fb:** The **Fb** (Feedback) parameter selects the amount of delay feedback. Feedback is always taken from the longest delay output. Range is **0-99%**.
- TS:** The **TS** (Tape Simulator) parameter is used as a low pass filter before the signal is put through the feedback circuit. This feature is used to simulate a warmer, more realistic room sound. Range is **1K, 2K, 4K, 8K, or OFF**.
- Mx:** The **Mx** (Mix) parameter sets the direct/effect mix. Range is **±100**.

## **Mono Delay**

A Mono delay, with delay times ranging from 0 to 255 clks (if using the MIDI sync feature) or 0 to 724 ms (if using a normal delay.)



## **Parameters**

- Ty:* The **Ty** (Type) parameter selects the type of delay desired. Select **STEREO**, **TAPPED**, or **MONO**. The parameters will change depending on the type of delay selected.
- Dl:* The **Dl** (Delay) parameter selects the amount of delay. Range is **0-724ms**.
- Fb:* The **Fb** (Feedback) parameter selects the amount of delay feedback. Feedback is always taken from the longest delay output. Range is **0-99%**.
- TS:* The **TS** (Tape Simulator) parameter is used as a low pass filter before the signal is put through the feedback circuit. This feature is used to simulate a warmer, more realistic room sound. Range is **1K, 2K, 4K, 8K, or OFF**.
- Mx:* The **Mx** (Mix) parameter sets the direct/effect mix. Range is **±100**.

### ***Phaser(PH)***

The classic phaser, or phase shifter, is one of the most commonly recorded guitar effects of the 70's. This effect modulates the phase shift amount of a signal and sums it back to the dry signal. It typically sounds best if used in front of the Transtube preamp, but it is quieter and more dramatic if used after the preamp.

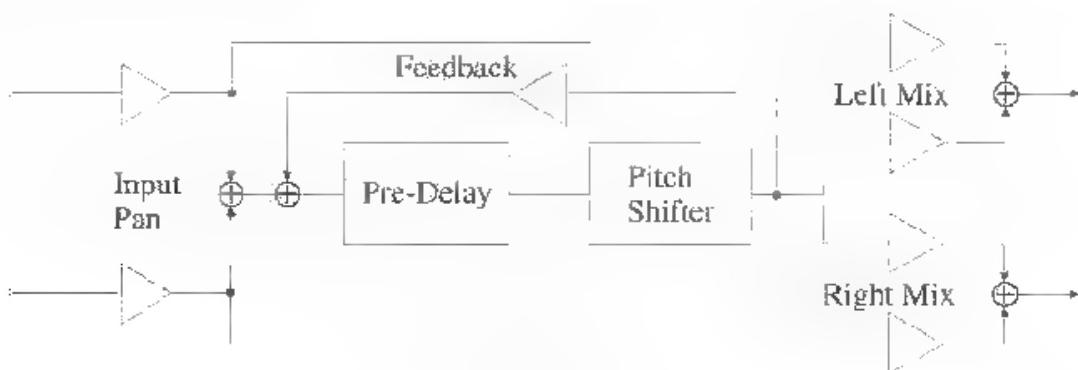
#### **Parameters**

- Rt:* The **Rt** (Rate) parameter adjusts the speed that the phase shift is modulated. It can be varied from **0-100**, although this range is somewhat higher than most stomp box phasers.
- Dp:* The **Dp** (Depth) control adjusts a feedback loop in the phase shifter to allow for a higher frequency, and more resonant whistle. This isn't like a depth control on a chorus, where the depth at 0 means no effect--just try it. The **0-100** range sounds the most normal when set around 50, and sounds like some of the more elaborate phase shifters with color switches, etc. when set to around 100.
- Mx:* The **Mx** (Mix) parameter would always be set to 100 for a typical stomp box sounding phaser. If set lower, however, more subtle phase shifts can be obtained.

## Pitch 1 and Pitch 2 (P1 and P2)

In order to allow stereo pitch shifting yet still have a pitch shifter available which does not use a large amount of effect space, we have developed a pitch shift effect with a panning input and independent left and right mix control. This effect is the only one that can be used in two locations in the chain simultaneously, thus allowing true stereo and independently controllable pitch shifting on each channel.

By placing two pitch shifters in parallel or series, and setting their inputs and mix levels panned to opposite sides, independent stereo detuning will be available.



## Parameters

- In:* The **In** (Input) parameter controls the left/right input pan.
- PD:* The **PD** (PreDelay) parameter allows up to 46 milliseconds of delay before the pitch transposition begins. This creates a doubling or chorusing type sound. Range is **0-46ms**.
- Pt:* The **Pt** (Pitch) parameter is used to select large amounts of transposition in half step increments. Range is **±12** (1 octave).
- Ct:* The **Ct** (Cents) parameter is used to fine tune the transposed pitch when necessary. Range is **±50**. (½ step is 100 cents.)
- Fb:* The **Fb** (Feedback) parameter controls the amount of output signal that is sent back to the input of the PreDelay. This can be used to create climbing or descending pitch type. Range is **0-99%**.
- LM:* The **LM** (Left Mix) parameter controls the direct/effect mix to the output of the effect for the left output channel. Range is **0-100%**.
- RM:* The **RM** (Right Mix) parameter controls the direct/effect mix to the output of the effect for the right output channel. Range is **0-100%**.

## ***Rotary Speaker (RS)***

The Rotary Speaker effect is normally thought of as a keyboard effect. However, many classic guitar sound were actually created by running guitar through a rotary speaker cabinet. This simulation incorporates separate Rotor and Drum speed controls for both high and low speeds, and the ability to ramp between high and low speeds via MIDI continuous controller. The frequency shift amount and stereo pan width can be adjusted, as well as the overall mix between wet and dry.

### **Parameters**

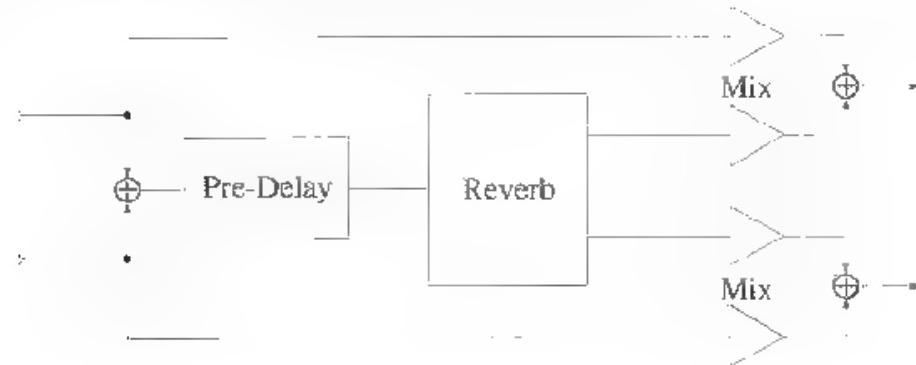
- SP:** The **SP** (Speed) parameter alternately switches the drum and rotor speeds from low to high or vice versa. The speed changes gradually, like a real rotary speaker.
- RH:** The **RH** (Rotor High Speed) parameter adjusts the speed of the Rotor (which plays the high frequencies) when the SP parameter is high. Its range is **0-100**. Typical values are in the 40 to 50 range.
- H:** The **H** (Drum High Speed) parameter adjusts the speed of the Drum (which plays the low frequencies) when the SP parameter is high. Its range is **0-100**. The rotary speaker effect sounds most normal if the drum speed is 1/2 to 1/3 the value of the Rotor speed.
- RL:** The **RL** (Rotor Low Speed) parameter adjusts the speed of the Rotor when the SP parameter is low. Its range is **0-100**.
- L:** The **L** (Drum Low Speed) parameter adjusts the speed of the Drum when the SP parameter is low. Its range is **0-100**.
- FM:** The **FM** (Rotor Frequency Modulation) parameter affects the amount of pitch shift that the spinning Rotor yields. The range is **0-100**, and typically sounds best around 75.
- P:** The **P** (Drum/Rotor Pan Modulation) parameter widens the stereo image by adjusting the amount of left/right panning similar to the AutoPan effect. The range is **0-100**, and typical values of about 75 sound good.
- MX:** The **MX** (Wet/Dry Mix) parameter allows mixing between wet and dry. For maximum Rotary speaker effect, adjust this parameter to 100. A setting of 0 will result in all dry signal passing through.

## **Reverb (RV)**

The versatile stereo Reverb effect contains eight types of reverb, each with fully adjustable parameters.

### *Reverb Types*

- ↳ **PLATE** Produces a smooth reverb similar to that achieved with plate-reverbs.
- ↳ **TUNNEL** Produces the many echoes associated with the acoustics with plate-reverbs.
- ↳ **SPRING** Simulates the reverb produced by a spring reverb machine.
- ↳ **ROOM** Produces the ambience of a live room.
- ↳ **STAGE** Produces the ambience associated with a club stage.
- ↳ **HALL** Produces the reverberation ambience associated with a concert hall.
- ↳ **GATED** Produces a smooth rolling reverb that cuts off sharply rather than decaying.
- ↳ **REVRS** Produces a reverb that builds from a quiet attack to a sharp decay, giving the impression of an instrument sound being played in reverse.



### **Parameters**

- Ty:* The **Ty** (Type) parameter selects the type of reverb desired. Select **PLATE**, **TUNNEL**, **SPRING**, **ROOM**, **STAGE**, **HALL**, **GATED**, or **REVRS**. The parameters will change depending on the type of reverb selected.
- Sz:* The **Sz** (Size) parameter determines the size of the reverb being used. Range is **SMALL**, **MEDIUM**, **LARGE**, or **HUGE**. This parameter is not available when using the **GATED** or **REVRS** reverb type.
- PD:* The **PD** (PreDelay) parameter determines the amount of delay that is to be added before the reverberations begin. Range **0-46ms**. This parameter is not available when using the **GATED** or **REVRS** reverb type.
- Tm:* The **Tm** (Time) parameter allows vary each reverb time. Range is **0-30s** (seconds) for all reverb types except **GATED** and **REVRS**. For **GATED** and **REVRS** types, the range is **25-365ms**.
- Dp:* The **Dp** (Damping) parameter controls the overall tone of the reverb being produced. Range is **125 Hz** to **8 kHz** or **OFF**. A low setting (**250 Hz**) results in high frequency reverberations being decayed very quickly; higher settings (**4 kHz**, **8 kHz**, or **OFF**) allow the high frequencies

to continue on in the reverberation. This parameter is not available when using the **GATED** or **REVERB** reverb type.

**Mix:** The **Mx** (Mix) parameter controls the direct/effect mix at the output of the effect. Range is **0-100%**.

### ***Classic EQ (CQ)***

The Classic Equalizer effect is a sweepable, mid - EQ used on many guitar amplifiers.

#### **Parameters**

**Lo:** The **Lo** (Low) parameter controls the level of the low frequency range. Range is **0-100**.

**Md:** The **Md** (Mid) parameter controls the level of the mid frequency range. Range is **0-100**.

**Sh:** The **Sh** (Shift) parameter is used to select the center of the mid frequency. Range is **0-100**.

**Hi:** The **Hi** (High) parameter controls the level of the high frequency range. Range is **0-100**.

### ***5-Band Graphic Equalizer (5B)***

The 5-Band Graphic Equalizer effect is a full stereo, five-band EQ with  $\pm 12$  dB gain on each frequency band, allowing emphasis or de-emphasis of any of the five bands. The center frequencies of the five bands are as follows: 100 Hz, 330 Hz, 1 kHz, 3 kHz, 10 kHz

### ***3-Band EQ with Sweepable Mid (3B)***

The 3-Band Sweepable Mid EQ effect is a standard stereo EQ with  $\pm 12$  dB of gain on each frequency band.

#### **Parameters**

**Ty:** The **Ty** (Type) parameter allows you to select from the following three EQ types: **Guitar**, **Voice**, and **Drastic**.

**Lo:** The **Lo** (Low Gain) parameter adjusts the gain of the low frequency band parameter. Range is  $\pm 50$ .

**MFrq:** The **MFrq** (Mid Frequency) parameter is used to select the center frequency of the mid frequency band. Range is **99 Hz-3.3 kHz**.

**Mtd:** The **Mtd** (Mid Gain) parameter adjusts the gain of the mid frequency band parameter. Range is  $\pm 50$ .

**Hi:** The **Hi** (High Gain) parameter adjusts the gain of the high frequency band parameter. Range is  $\pm 50$ .

### ***4-Band Parametric EQ (4B)***

The Parametric Equalizer is a four - band stereo equalizer with individually adjustable center frequencies, bandwidths, and gains for each of the four bands.

#### **Parameters**

**Band#:** The **Band#** (Band, where # is 1, 2, 3, or 4 ) parameter is used to select any one of the four bands. After a band has been selected, the frequency, bandwidth, and gain setting may be made for that particular band.

*Fq:* The **Fq** (Frequency) parameter is used to select the center frequency point of each band. Range is **20 Hz-16 kHz**.

*BW:* The **BW** (Bandwidth) parameter determines the width of the band. Range is **1-1/100** of an octave.

*Gain:* The **Gain** parameter adjusts the gain of the band. Depending upon the setting, the gain can be used to emphasize (+dB) or de-emphasize (-dB) the particular band. Range is **-24dB to +12dB**.

## *2 - Channel Mixer (MX)*

The 2 - Channel mixer can be used to combine any portion of Left and Right signals and send these mixed to its Left and Right output.

### **Parameters**

*Lk:* The **Lin→Lout** parameter will set the percentage of the left input signal that will be sent to the left output.

*LR:* The **Lin→Rout** parameter will set the percentage of the left input signal that will be sent to the right output.

*Rl:* The **Rin→Lout** parameter will set the percentage of the right input signal that will be sent to the left output.

*Rr:* The **Rin→Rout** parameter will set the percentage of the right input signal that will be sent to the right output.

## *Coil Tap (CT)*

The Coil Tap effect is a special digital filter which can be used to emphasize or de-emphasize harmonics.

### **Parameters**

*Fq:* When the phase parameter is set to a positive number, the **Fq** (Frequency) parameter controls the amount of harmonics being emphasized. When the phase parameter is set to a negative number, the harmonics are de-emphasized. Range is **1-10**.

*Ph:* The **Ph** (Phase) parameter is used to select the emphasis or de-emphasis of harmonics. Setting the Phase to a positive number will emphasize harmonics, while setting the Phase to a negative number de-emphasizes the harmonics. Range is **±100**.

## *Exciter (EX)*

The Exciter effect uses a "distortion technique" to add harmonics. Using this technique does not, in fact, result in a distorted sound, but instead produces an exciter effect.

### **Parameters**

*Dr:* The **Dr** (Drive) parameter setting determines the amount of harmonics added. Range is **0** (no harmonics) to **100** (maximum harmonics).

- Tu:* The **Tu** (Tune) parameter controls the amount of emphasis. Range is **0.1K** (excites lower frequencies) to **4.9K** (excites higher frequencies).
- Ty:* The **Ty** (Type) parameter is used to select between three different distortion types which produce three different sounds. Range is **1-3**. Type **1** adds even harmonics, type **2** adds odd harmonics, type **3** adds even and odd harmonics.
- Ba:* The **Ba** (Balance) parameter is used to set the balance. Range is **0** (direct) to **100** (excited).

### **Envelope Filter (EF)**

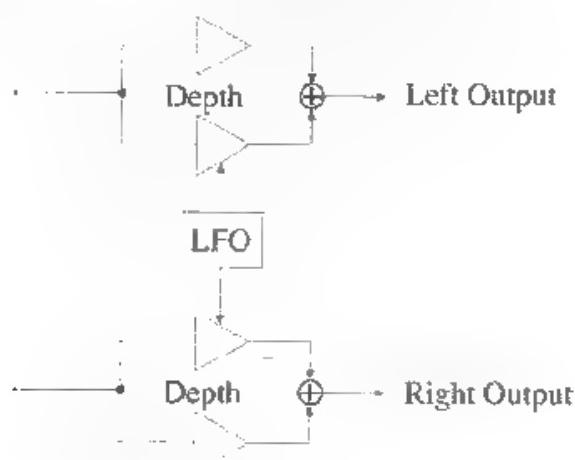
The Envelope Filter effect is an amplitude modulated filter. As the input signal level to the envelope filter changes, the filter frequency changes. This effect is sometimes referred to as an "automatic wah."

## **Parameters**

- Sn:* The **Sn** (Sensitivity) parameter is used to adjust the sensitivity to changing input signal levels. Range is **±100**. If the sensitivity is set to a positive number, then the filter frequency will increase with a rising input. If sensitivity is negative, then frequency decreases with a rising input level.
- Fq:* The **Fq** (Frequency) parameter adjusts the starting point of the filter frequency. Range is **0-100**. From there the filter will sweep up or down (depending on sensitivity) as the playing level changes frequency ranging from 2K to 5K, respectively. When the sensitivity is positive, the frequency values correspond to the frequency range 100 Hz to 2 kHz.
- Rs:* When the Bandpass filter type is selected, the **Rs** (Resonance) parameter is used to adjust the amount of the Bandpass filter. Range is **0** (narrowest) to **100** (widest). When the Lowpass filter is selected, Resonance adjusts the steepness of the filter cutoff.
- Ty:* The **Ty** (Type) parameter is used to select the filter type. Select **LP-Slo** (lowpass-slow), **LP-Fst** (lowpass-fast), **BP-Slo** (bandpass-slow), or **BP-Fst** (bandpass-fast).
- Mx:* The **Mx** (Mix) parameter is used to control the direct/effect mix at the output of the effect. Range is **0-100%**.

### **Auto Pan (PN)**

The Auto Pan effect is used to pan the output signal between the left and right outputs. The panning rate and depth are both user - selectable. The Auto Pan is a stereo effect.



## Parameters

- Rt:* The **Rt** (Rate) parameter selects the speed at which the signal pans between the two outputs. Range is **0.0-99.9 Hz**.
- Dp:* The **Dp** (Depth) parameter determines the amount of signal being panned. Range is **0-100%**. Selecting a depth setting of **10%** would yield a less - defined pan, and setting the depth to **90%** would result in a deep panning from side to side.

## ***Speaker Simulation (SS)***

The TransFex Pro 212s has four stereo speaker simulation curves:

- ✓ **2x12 Open** Simulates the frequency response of an open backed cabinet.
- ✓ **2x12 Closed** Simulates the frequency response of a closed backed cabinet.
- ✓ **4x12 Cabinet** Simulates the sound of four 12" speakers in a single cabinet.
- ✓ **4x12 British** Simulates the frequency response of a well - known British manufacturer's guitar speaker setup.

These speaker simulation curves are convenient for both live performance and recording applications where the guitar is directly connected to a mixing console.

**Tip:** To only affect what goes out the balanced (direct) outputs and have full range going to your cabinet, try adding the following to the end of your effects chain:

...→**FX**→**SS** (use the stereo Effects Send outputs to go to your cabinet)

## ***Stereo Simulator (ST)***

A transverse filter approach is used to simulate stereo separation of a mono signal. The mono signal is fed into a comb filter and the output and input is summed in the right channel and subtracted from the left channel. The resulting output simulates stereo separation of frequency bands. **Tune** adjusts the distance between the separated frequency bands. There is a LowPass filter which, when on, will keep the bass centered between the two channels. The **Depth** of the stereo separation is variable from **0-100%**.

## Parameters

- LP:* The **LP** (LowPass) parameter is a lowpass filter which, when on, will keep the bass centered between the two channels. Choose **ON** or **OFF**.
- Tune:* The **Tune** parameter adjusts the distance between the separated frequency bands. Range is **100-500Hz**.
- Depth:* The **Depth** parameter is the depth of the stereo separation. Range is **0-100**.

## ***Noise Gate (NG)***

The Noise Gate effect is a downward expander.

The Peak level is determined by the input signal plus attack and decay variables, which set the speed at which the peak can change.

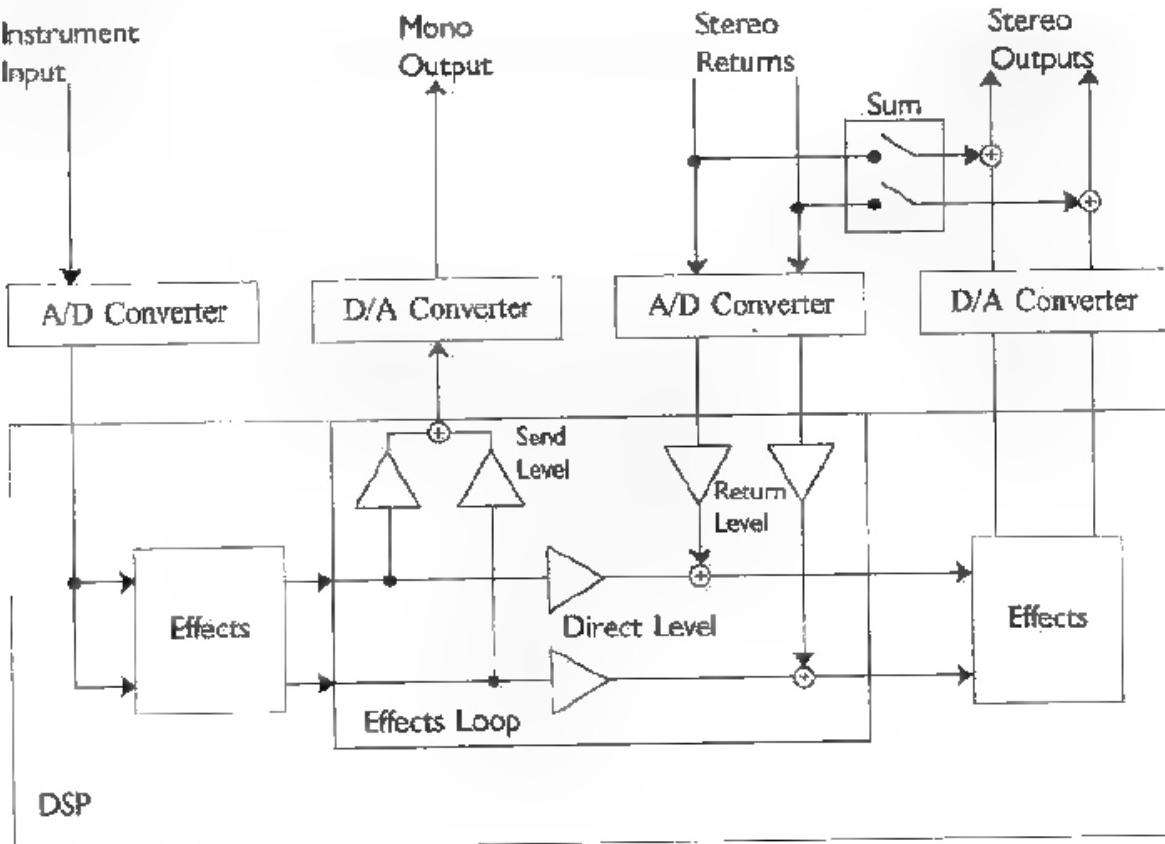
## Parameters

- Atk:* The **Atk** (Attack Time) parameter is used to remove sharp attack transients. The larger this number, the longer the attack will take to open the gate once closed. Range **0-99**.
- Rel:* The **Rel** (Release Time) parameter adjusts the amount of time it takes a decaying signal to drop below the threshold. The larger this number, the longer it will take for a decaying signal to drop below the threshold. Range **1-99**.
- Thr:* The **Thr** (Threshold) parameter sets the level, in dB, below digital clipping that the gate will begin to close. Range is **-2** to **-90 dB**.
- Sen:* The **Sen** (Sensitivity) parameter determines the peak level below threshold that the gate will be fully closed. Range is **1-9**.

### Effects Loop (FX)

The movable effects loop appears just as any other effect and can be placed anywhere in the effects chain. The sends are mono and are available from one jack at the back of the unit. The returns are in stereo, and this stereo signal may be **summed** in stereo with the output from the DSP after the last effect in the chain. The signal returning to the DSP is also stereo and is added to the stereo **direct** signal. This signal is then passed on to the next effect in the chain.

**Note:** When a MONO signal is returned, plug the signal into the LEFT/MONO effects return jack. This ensures that 100% of the return signal is summed back into the A/D converter.

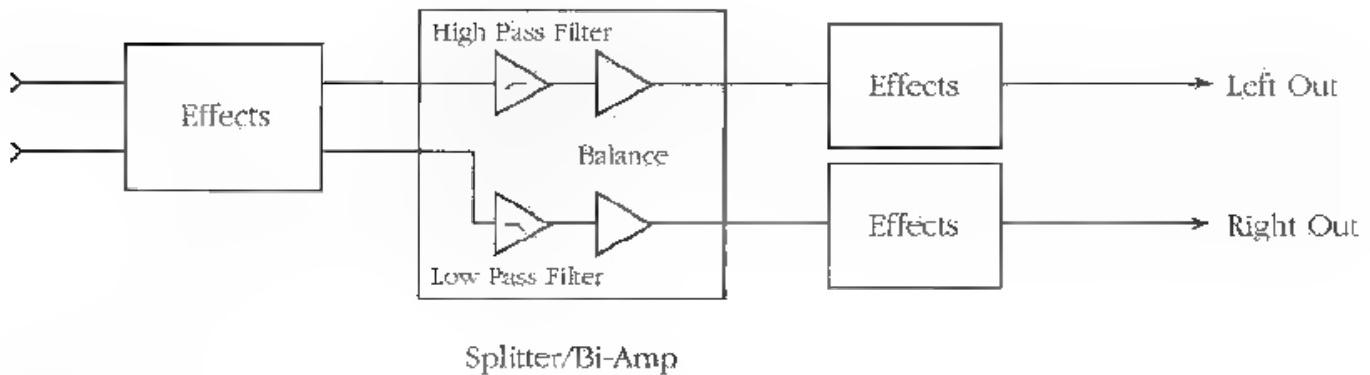


## Parameters

- Send:** The **Send** (Send Level) parameter determines the level of the signal that is sent to the Effects Send jacks. Range is **0-100**.
- Dir:** The **Dir** (Direct Level) parameter determines the level of the direct signal that is mixed with the input from the effect loop returns. Range is **0-100**.
- Rtn:** The **Rtn** (Return Level) parameter determines the level of the signal that is returned to the effects chain. Range is **0-100**.
- Sum:** The **Sum** (Summed Return Level) parameter turns **ON** and **OFF** an analog switch that sums the stereo returns with the analog output from the digital effects.

## Splitter/Bi-Amp (SP)

The splitter/bi-amp effect enables you to split the stereo signal into two separate chains, placing different effect types on each chain. The signal following the splitter is MONO and only appears on one channel. Therefore, note that the signal on the LEFT path (top line) only passes through the LEFT half of effects following the splitter, and the signal on the RIGHT path (bottom line) only appears on the RIGHT channel of effects following the splitter.



## Parameters

**Mode:** There are two modes available: **SPLITTER** and **BI-AMP**.

- Bal:** The **Bal** (Balance) parameter controls the right/left balance of the splitter output. This works like a normal stereo balance where the signal output from both sides is 100% at a balance of 50; at 0, 100% of the right signal is passed through and none of the left signal is passed; at 100, 100% of the left signal passes and none of the right signal is passed.
- Hi-L:** This is a high pass filter that allows frequencies higher than the specified frequency to pass to the left channel. Range is **20 Hz** to **3.3 kHz**. This parameter is not available when **SPLITTER** is used.
- Lo-R:** This is a low pass filter that allows frequencies lower than the specified frequency to pass to the right channel. Range is **20 Hz** to **3.3 kHz**. This parameter is not available when **SPLITTER** is used.

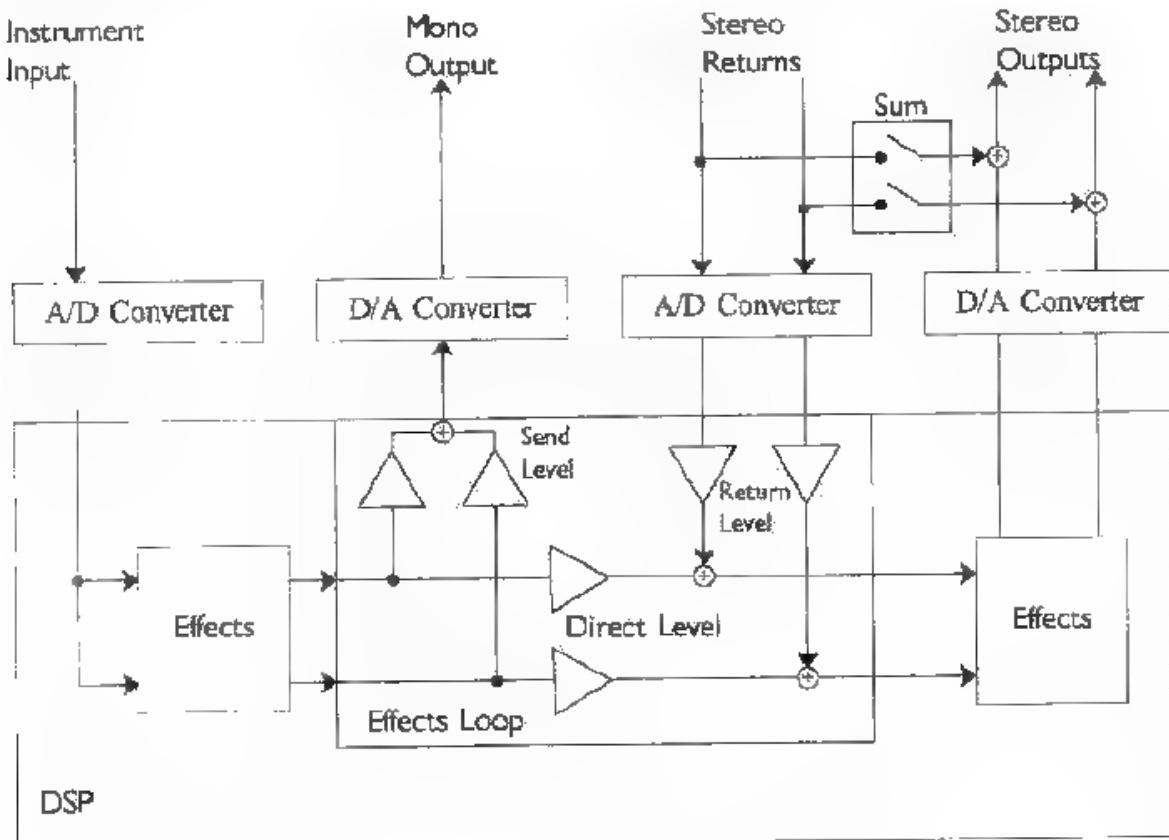
## Parameters

- Atk:* The **Atk** (Attack Time) parameter is used to remove sharp attack transients. The larger this number, the longer the attack will take to open the gate once closed. Range **0-99**.
- Rel:* The **Rel** (Release Time) parameter adjusts the amount of time it takes a decaying signal to drop below the threshold. The larger this number, the longer it will take for a decaying signal to drop below the threshold. Range **1-99**.
- Thr:* The **Thr** (Threshold) parameter sets the level, in dB, below digital clipping that the gate will begin to close. Range is **-2** to **-90 dB**.
- Sen:* The **Sen** (Sensitivity) parameter determines the peak level below threshold that the gate will be fully closed. Range is **1-9**.

## Effects Loop (FX)

The movable effects loop appears just as any other effect and can be placed anywhere in the effects chain. The sends are mono and are available from one jack at the back of the unit. The returns are in stereo, and this stereo signal may be **summed** in stereo with the output from the DSP after the last effect in the chain. The signal returning to the DSP is also stereo and is added to the stereo **direct** signal. This signal is then passed on to the next effect in the chain.

**Note:** When a MONO signal is returned, plug the signal into the LEFT/MONO effects return jack. This ensures that 100% of the return signal is summed back into the A/D converter.

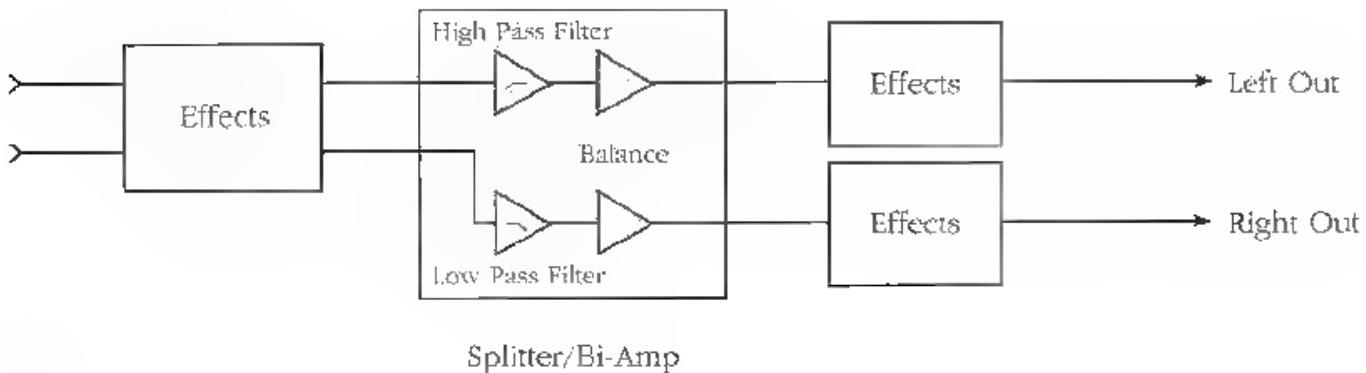


## Parameters

- Send:* The **Send** (Send Level) parameter determines the level of the signal that is sent to the Effects Send jacks. Range is **0-100**.
- Dir:* The **Dir** (Direct Level) parameter determines the level of the direct signal that is mixed with the input from the effect loop returns. Range is **0-100**.
- Rtn:* The **Rtn** (Return Level) parameter determines the level of the signal that is returned to the effects chain. Range is **0-100**.
- Sum:* The **Sum** (Summed Return Level) parameter turns **ON** and **OFF** an analog switch that sums the stereo returns with the analog output from the digital effects.

## Splitter/Bi-Amp (SP)

The splitter/bi-amp effect enables you to split the stereo signal into two separate chains, placing different effect types on each chain. The signal following the splitter is MONO and only appears on one channel. Therefore, note that the signal on the LEFT path (top line) only passes through the LEFT half of effects following the splitter, and the signal on the RIGHT path (bottom line) only appears on the RIGHT channel of effects following the splitter.



## Parameters

*Mode:* There are two modes available; **SPLITTER** and **BI-AMP**.

*Bal:* The **Bal** (Balance) parameter controls the right/left balance of the splitter output. This works like a normal stereo balance where the signal output from both sides is 100% at a balance of 50; at 0, 100% of the right signal is passed through and none of the left signal is passed; at 100, 100% of the left signal passes and none of the right signal is passed.

*Hi-L:* This is a high pass filter that allows frequencies higher than the specified frequency to pass to the left channel. Range is **20 Hz** to **3.3 kHz**. This parameter is not available when **SPLITTER** is used.

*Lo-R:* This is a low pass filter that allows frequencies lower than the specified frequency to pass to the right channel. Range is **20 Hz** to **3.3 kHz**. This parameter is not available when **SPLITTER** is used.

# **Appendix B MIDI Implementation**

## **MIDI Implementation**

Date: 1/95  
Version: 1.0

Model: Tube Fex

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Channel	1-16	1-16	Memorized
Mode	Default Messages Altered	3 X X	1, 3 X X	
Note Number	True Voice	X	O	MIDI Dynamic Effects Controller
Velocity	Note On Note Off	X X	X X	
After-touch	Key's Ch's	X X	O X	MIDI Dynamic Effects Controller
Pitch Bender		X	O	MIDI Dynamic Effects Controller
Control Change		X	0-120	MIDI Dynamic Effects Controller Controller =91—Bypass
Program Change	True#	0-127	0-127	
System Exclusive		O-	O	
System Common	: Songs Pos : Song Sel : Tune	X X X	X X X	
System Real Time	: Clock : Commands	X X	O X	Sync Delay
Auxiliary Messages	: Local On/Off : All Notes Off : Active Sense : Reset	X X X X	X X X X	

Mode 1 : OMNI ON, POLY   Mode 2 : OMNI ON, MONO  
Mode 3 : OMNI OFF, POLY   Mode 4 : OMNI OFF, MONO

O : Yes  
X : No

# **Appendix C System Exclusive Format**

The following is the format for the System Exclusive dump and load requests:

F0 00 00 1B 09 05 rs ch cm nn data ... cksum (data ... cksum ...) F7

Where:

- rs = reserved for future use.
- ch = MIDI receive channel.
- cm = MIDI command. (See Table of Commands)
- nn = number of selected User Preset or Set. (Include only for Dump One Preset, Dump One Controller, or Dump Set requests. Do not include in Dump All Presets, Controllers, or Programs.)
- data = parameter data included only in load messages.
- cksum = modulo 128 checksum included only in load messages.

**Note:** For valid SYSEX DUMP requests, the data and checksum is not included.

## **Table of Commands**

**Note:** All numbers are in hexadecimal.

cm nn

00 nn Dump One Preset (nn = 00 - 7F) including continuous controllers.

02 nn Dump Preset Set (nn = 00 - 0B) including continuous controllers.

04 — Dump All Presets (nn not included) including continuous controllers.

06 — Dump All Programs

0E — Dump Edit Buffer

*Dump One Preset:* Dumps one preset's parameter data and continuous controllers.

*Dump Preset Set:* Dumps ten preset's parameter data and continuous controllers.

*Dump All Presets:* Dumps all 128 user preset's parameter data, continuous controllers, and the program/volume map.

*Dump All Programs:* Dumps the program/volume map.

*Dump Edit Buffer:* Dumps contents of name, chain, parameter, and continuous controller from edit buffer.

## **SYSEX Dump File Format**

The following information is provided for programmers wishing to make use of sysex dump files to initialize remote editing software.

The first ten bytes transmitted in response to a dump one preset request is the sysex load one preset header.

Following that, in nybbilized form are ten *name*bytes. Next come ten *nybbilized*/bytes representing the effects chain.

Finally come 310 nybbilized bytes representing the effect parameters. The format of this data is the same format used in the remote editing commands. The order of the effects and the number of bytes for each effect is as follows:

Levels:	8 bytes	Mixer:	4 bytes
Compressor:	5 bytes	Coil tap:	2 bytes
Distortion:	8 bytes	Exciter:	5 bytes
Overdrive:	5 bytes	Envelope filter:	6 bytes
Chorus:	5 bytes	Auto pan:	3 bytes
Delay:	8 bytes	Speaker simulator:	1 byte
Pitch1:	7 bytes	Stereo sim:	3 bytes
Pitch2:	7 bytes	Noise gate:	4 bytes
Reverb:	8 bytes	Effects loop:	4 bytes
Classic eq:	4 bytes	Bi-amp/splitter:	6 bytes
5 band eq:	5 bytes	TransTube:	8 bytes
3 band eq:	6 bytes	Tremolo:	6 bytes
4 band eq:	16 bytes	Phaser:	3 bytes
		Rotory Speaker:	8 bytes

Following that are forty nybbled bytes representing the eight continuous controller assignments. Once again, the format is the same as the remote editing format in **Appendix D**.

The last two bytes are the Modulo 128 checksum and the End Of Exclusive message.  
dump all format:

During a "Dump all presets", all 128 presets are dumped, each with its own modulo 128 checksum for error trapping during reload. These are followed by the two program maps.

### ***System Exclusive Dump Examples:***

To dump Preset #1 (00H) over MIDI channel 1, send the following string:

```
F0 00 00 1B 09 05 00 00 00 00 F7
```

To dump Preset Set #3 (02H) over MIDI channel 1, send the following string:

```
F0 00 00 1B 09 05 00 00 02 02 F7
```

To dump all Presets over MIDI channel 1, send the following string:

```
F0 00 00 1B 09 05 00 00 00 04 F7
```

To dump all Programs over MIDI channel 1, send the following string:

```
F0 00 00 1B 09 05 00 00 00 06 F7
```

To dump the Edit Buffer over MIDI channel 1, send the following string:

```
F0 00 00 1B 09 05 00 00 00 0E F7
```

# **Appendix D Remote Editing with SysEx**

## **Remote Editing Via SYSEX**

The Sysex command is of the following format:

F0 00 00 1B 09 05 rs ch 10 fx\_type pram datH datL (00 datH2 datL2) F7

where:

*rs* reserved for future use.

*ch* is the MIDI channel number the unit is set to receive on.

*fx\_type* is the effect indicator.

*pram* is the offset to the parameter.

*datH datL* is the first byte in nybble form.

*00* indicates that this is a 2 byte variable (optional).

*datH2 datL2* is the second byte in nybble form (optional).

Any parameter in the edit buffer can be remotely edited using the Remote Editing SysEx commands. This includes the effects chain, effects levels, all effect parameters, the preset name, and the eight continuous controllers.

All remote editing changes are made to the preset in the edit buffer. User Presets will not be affected until the change is made permanent by storing it either remotely or from the front panel.

The remote *store* buffer command is of the following format:

F0 00 00 1B 09 05 rs ch 11 dest F7

where:

*dest* is the User preset storage location (0-127).

### **Remote Editing Example:**

If the following chain is present in the edit buffer:

TB→CM

and you want to edit the Pregain (parameter #1) in the Tube effect (FX Type 17) to a level of 45 (2DH) via sysex using MIDI channel #1 (00H), you would send the following string:

F0 00 00 1B 09 05 00 00 10 17 01 02 0D F7

The 02 0D is the hex nybbilized equivalent of 45.

The following is a detailed look at the exact edit buffer locations being accessed by each FX\_TYPE, PRAM pair:

## ***FX\_TYPE 0: Effect Chain***

This is the command to edit the effect chain. Pram is a number between 0 and 7 which corresponds to the location of the parameter in the effect. The data corresponds to each effect as follows:

(all numbers in hexadecimal)

Data

00	=	End of Chain
01	=	Compressor
02	=	Distortion
03	=	Overdrive
04	=	Chorus
05	=	Delay
06	=	Pitch 1
07	=	Pitch 2
08	=	Reverb
09	=	Classic EQ
0A	=	5 - Band Graphic Equalizer
0B	=	3 - Band Mid Sweep Equalizer
0C	=	4 - Band Parametric Equalizer
0D	=	Mixer
0E	=	Coil Tap
0F	=	Exciter
10	=	Envelope Filter
11	=	Pan
12	=	Speaker Simulator
13	=	Stereo Simulator
14	=	Noise Gate
15	=	Effects Loop
16	=	Splitter
17	=	Transtube
18	=	Tremolo
19	=	Phaser
1A	=	Rotary Speaker
FF	-	End of Left (top) path

***Important note to programmers:*** When adding a splitter to the chain, add the splitter at the desired location, then be sure to add an End of Left Path in the position following the last desired effect for the left path. Right path effects follow this marker. When deleting the splitter from the chain, the end of left path marker **must** be replaced with an End of Chain marker **before** replacing the splitter with another effect.

Effects can be added to the current end of the effect chain, or any existing effect can be changed to another type. Any attempt to add an effect beyond the end of the existing chain or to duplicate an existing effect will be ignored by the unit.

#### ***FX\_TYPE 1: Compressor***

This command allows remote access to the Compressor parameters. The data is stored as follows:

PRAM

- 0 = Attack Time
- 1 = Release Time
- 2 = Sustain
- 3 = Level
- 4 = Noise Gate Threshold (0-9 => 1-10)

#### ***FX\_TYPE 2: Distortion***

PRAM

- 0 = Drive
- 1 = Post Gain
- 2 = Fat (Bottom)
- 3 = Edge
- 4 = Body
- 5 = Shift
- 6 = Resonance (units) \ may be loaded as 1 byte or 2 bytes of data
- 7 = Resonance (tenths) /

#### ***FX\_TYPE 3: Overdrive***

PRAM

- 0 = LoRollOff (units) \ may be loaded as 1 byte or 2 bytes of data
- 1 = LoRollOff (tenths) /
- 2 = PreDrive
- 3 = Clip Level
- 4 = Output Level

#### ***FX\_TYPE 4: Chorus***

PRAM

- 0 = Rate (units) \ may be loaded as 1 byte or 2 bytes of data
- 1 = Rate (Tenths) /
- 2 = Depth
- 3 = Delay (units) \ may be loaded as 1 byte or 2 bytes of data
- 4 = Delay (tenths) /
- 5 = Feedback (0-200 => -100 to +100)
- 6 = Mix (0-200 => -100 to +100)

### ***FX\_TYPE 5: Delay***

PRAM

- 0 = Left (mono) Delay (low byte) \ may be loaded as 1 byte or 2 bytes of data
- 1 = Left (mono) Delay (high byte) /
- 2 = Left (mono) Feedback
- 3 = Right Delay (low byte) \ may be loaded as 1 byte or 2 bytes of data
- 4 = Right Delay (high byte) /
- 5 = Right feedback
- 6 = Mix (0-200 => -100 to +100)
- 7 = Tape Sim / Delay Type  
(high nybble = tape sim freq, low nybble = delay type)

### ***FX\_TYPE 6: Pitch Shift 1***

PRAM

- 0 = Pitch (0-24 => -12 to +12)
- 1 = Cents (0-100 => -50 to +50)
- 2 = Feedback
- 3 = Left Mix
- 4 = PreDelay Length
- 5 = Right Mix
- 6 = Input Pan (0=full right, 100=full left)

### ***FX\_TYPE 7: Pitch Shift 2***

PRAM

- 0 = Pitch (0 - 24 => -12 to +12)
- 1 = Cents (0 - 100 => -50 to +50)
- 2 = Feedback
- 3 = Left Mix
- 4 = PreDelay Length
- 5 = Right Mix
- 6 = Input Pan (0 = full right, 100 = full left)

### ***FX\_TYPE 8: Reverb***

PRAM

- 0 = Type
- 1 = Size
- 2 = Time (seconds) \ may be loaded as 1 byte or 2 bytes of data
- 3 = Time (tenths) /
- 4 = Damping
- 5 = Mix
- 6 = Gated Reverb Time
- 7 = Pre Delay

### ***FX\_TYPE 9: Classic EQ***

PRAM

- 0 = Low Gain
- 1 = Mid Gain
- 2 = Mid Shift
- 3 = High Gain

### ***FX\_TYPE \$A: 5-Band Graphic Equalizer***

PRAM

- 0 = 100 Hz Gain (0 - 48 => -12 to +12 in .5 dB steps)
- 1 = 330 Hz Gain (0 - 48 => -12 to +12 in .5 dB steps)
- 2 = 1 kHz Gain (0 - 48 => -12 to +12 in .5 dB steps)
- 3 = 3 kHz Gain (0 - 48 => -12 to +12 in .5 dB steps)
- 4 = 10 kHz Gain (0 - 48 => -12 to +12 in .5 dB steps)

### ***FX\_TYPE \$B: 3-Band Mid Sweep Equalizer***

PRAM

- 0 = Low Gain (0 - 50)
- 1 = Mid Freq (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 2 = Mid Freq (exponent) /
- 3 = Mid Gain (0 - 50)
- 4 = High Gain (0 - 50)
- 5 = Type

### ***FX\_TYPE \$C: 4-Band Parametric Equalizer***

PRAM

- 0 = Band 1 Frequency (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 1 = Band 1 Frequency (exponent) /
- 2 = Band 1 1/Bandwidth
- 3 = Band 1 Gain (0 - 72 => -24 to +12 in .5 dB steps)
- 4 = Band 2 Frequency (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 5 = Band 2 Frequency (exponent) /
- 6 = Band 2 1/Bandwidth
- 7 = Band 2 Gain (0 - 72 => -24 to +12 in .5 dB steps)
- 8 = Band 3 Frequency (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 9 = Band 3 Frequency (exponent) /
- A = Band 3 1/Bandwidth
- B = Band 3 Gain (0 - 72 => -24 to +12 in .5 dB steps)
- C = Band 4 Frequency (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- D = Band 4 Frequency (exponent) /
- E = Band 4 1/Bandwidth
- F = Band 4 Gain (0 - 72 => -24 to +12 in .5 dB steps)

***FX\_TYPE \$D: Mixer***

PRAM

- 0 = Left in to Left out
- 1 = Left in to Right out
- 2 = Right in to Left out
- 3 = Right in to Right out

***FX\_TYPE \$E: Coil Tap***

PRAM

- 0 = Frequency
- 1 = Phase

***FX\_TYPE \$F: Exciter***

PRAM

- 0 = Drive
- 1 = Tune (integer) \ may be loaded as 1 byte or 2 bytes of data
- 2 = Tune (fraction) /
- 3 = Type
- 4 = Balance

***FX\_TYPE \$10: Envelope Filter***

PRAM

- 0 = Sensitivity
- 1 = Frequency
- 3 = Resonance
- 4 = Type
- 5 = Mix

***FX\_TYPE \$11: Auto Pan***

PRAM

- 0 = Rate (units) \ may be loaded as 1 byte or 2 bytes of data
- 1 = Rate (tenths) /
- 2 = Depth

***FX\_TYPE \$12: Speaker Simulator***

PRAM

- 0 = Type

### ***FX\_TYPE \$13: Stereo Simulator***

PRAM

- 0 = Lowpass Filter (off/on)
- 1 = Tune
- 2 = Depth

### ***FX\_TYPE \$14: Noise Gate***

PRAM

- 0 = Attack Time
- 1 = Release Time
- 2 = Threshold
- 3 = Sensitivity

### ***FX\_TYPE \$15: Effects Loop***

PRAM

- 0 = Send Level
- 1 = Direct Level
- 2 = Return Level
- 3 = Summer

### ***FX\_TYPE \$16: BI-AMP/Splitter***

PRAM

- 0 = Mode
- 1 = Balance
- 2 = Highpass Freq (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 3 = Highpass Freq (exponent) /
- 4 = Lowpass Freq (mantissa) \ may be loaded as 1 byte or 2 bytes of data
- 5 = Lowpass Freq (exponent) /

### ***FX\_TYPE \$17: Transtube***

PRAM

- 0 = Mode
- 1 = Pregain
- 2 = Pad
- 3 = Postgain
- 4 = Bass/Bottom gain
- 5 = Middle/Body gain
- 6 = Treble/Edge gain
- 7 = Presence/Shift

#### ***FX\_TYPE \$18: Tremolo***

##### PRAM

- 0 = Left Speed (units)
- 1 = Left Speed (tenths)
- 2 = Left Intensity
- 3 = Right Speed (units)
- 4 = Right Speed (tenths)
- 5 = Right Intensity

#### ***FX\_TYPE \$19: Phaser***

##### PRAM

- 0 = Rate
- 1 = Depth
- 2 = Mix

#### ***FX\_TYPE \$1A: Rotary Speaker***

##### PRAM

- 0 = Rotor High Speed
- 1 = Rotor Low Speed
- 2 = Drum High Speed
- 3 = Drum Low Speed
- 4 = Frequency Modulation
- 5 = High/Low Speed Select
- 6 = Pan Modulation
- 7 = Mix

#### ***FX\_TYPE \$1B: Name Buffer Edit***

##### PRAM

Ten PRAMS each refer to a character position in the name buffer.

***FX\_TYPE \$1C - \$23*** correspond to controllers 1 - 8. Each controller has five parameters; they are:

##### PRAM

- 0 = Effect type\ may be loaded as 1 byte or 2 bytes of data
- 1 = Effect parameter\
- 3 = Continuous Controller Number (1-128)
- 4 = Channel 0 - 16 ( 16 is Omni)
- 5 = Scale Factor (-100 - 100)

These Effect type / Parameter Pairs are identical to the pairs listed above. Each of the 2 - byte parameters are referenced by the first PRAM of the pair. Some effects parameters do not have controllers available. An error message will appear if an unused FX\_TYPE/Parameter pair is sent.

#### ***FX\_TYPE \$24: Effect Levels***

##### PRAM

- 0 = Effect 1 level
- 1 = Effect 2 level
- 2 = Effect 3 level
- 3 = Effect 4 level
- 4 = Effect 5 level
- 5 = Effect 6 level
- 6 = Effect 7 level
- 7 = Effect 8 level

# **Specifications**

## **POWER AMP SECTION**

### **Rated Power & Load:**

Power specs measured with T. Dynamics™ @ 100%  
90 W RMS into 8 ohms per side  
130 W RMS into 4 ohms per side

### **Power @ Clipping: (typically)**

(5% THD, 1kHz, 120V AC line)  
90 W RMS into 8 ohms per side  
130 W RMS into 4 ohms per side

### **Frequency Response:**

+0, -3 dB, 60 Hz to 20kHz, @.75 W RMS  
into 8 ohms per side

### **Power Amp Hum & Noise:**

Greater than 80 dB below rated power

### **Power Consumption:**

600 W @ 50/60 Hz, 120 V AC, Domestic  
600 W @ 60 Hz, 220-230/240 V AC, Export

## **PREAMP/EFFECTS SECTION**

### **D/A and A/D Conversion:**

Rate: 44.1 kHz  
Quantization: 16-bit  
Oversampling: 64X

The following specs are measured with a 0.33 VRMS (-10 dBV) signal and the controls set as follows:

Master Level @ 10  
Resonance and Presence @ 0  
T. Dynamics @ 100%  
Global Input Level set just below DSP clipping  
Global EQ's set @ 0  
Global Output Level adjusted for rated power  
Effects chain with Delay and Effects loop on  
Delay mix set to 0  
Effects Send and Return Levels @ 100  
Effects Direct Level @ 0  
Effects Sum turned OFF

**Frequency Response:**  
12 Hz to 20 kHz +/- 2 dB

**Total Harmonic Distortion:**  
Less than 0.02% at 1 kHz (1 V RMS)

**Preamp Signal-to-Noise Ratio:**  
Greater than 86 dB

**System Hum and Noise:**  
Greater than 75 dB below rated power

**Effects Send:**  
Load Impedance: 1 K ohm or greater  
Nominal Output Level: -10 dBV, 0.3 V RMS  
(FX must be in the TransFex® patch)

**Effects Return:**  
Impedance: High-Z, 40 K ohms  
Designed Input Level: -10 dBV, 0.3 V RMS  
(FX must be in the TransFex® patch)

**Preamp Outputs:**  
Load Impedance: 1 K ohm or greater  
Nominal Output Level: 0 dBV, 1 V RMS

**Power Amp Inputs:**  
Impedance: 1 K ohm or greater  
Input Level for rated pwr: -4 dBV, 0.6 V RMS  
or greater, depending on Master Level.  
(Switching jack provides preamp output to power amp input connection when not used)

**External Footswitch Functions:**  
MIDI Channel selection  
MIDI Continuous Controller functions  
Remote Tuner Access  
Remote Preset Display  
(Using optional PFC 10 MIDI pedal)

**Dimensions:**  
Width: 26 5/8 inches  
Depth: 11 1/4 inches  
Height: 20 3/4 inches  
Weight: 75 pounds

**THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.**

**Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur.**

**Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canadá. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes países.**

**PEAVEY ONE-YEAR LIMITED**

**WARRANTY/REMEDY**

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions, and limitations hereinafter set forth:

**PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS**

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

**CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES**

These limited warranties shall be void and of no effect, if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

- i. In the case of tubes or meters, replace the defective component without charge.
- ii. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

**THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.**

In order to obtain service under these warranties, you must:

- i. Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product. If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

**OR**

- b. Ship the defective item, prepaid, to:

**PEAVEY ELECTRONICS CORPORATION**

**International Service Center**

**326 Hwy. 11 & 80 East**

**MERIDIAN, MS 39301**

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items:

If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or in directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

**UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESSED, LIMITED WARRANTIES, AS HEREINAFTER STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of expressed or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

**INSTRUCTIONS — WARRANTY REGISTRATION CARD**

1. Mail the completed WARRANTY REGISTRATION CARD to:

**PEAVEY ELECTRONICS CORPORATION  
POST OFFICE BOX 2898  
MERIDIAN, MISSISSIPPI 39302-2898**

- a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation.

**2. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES:**

- i. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
- ii. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.

3. You may contact Peavey directly by telephoning (601) 483-5365.

### **IMPORTANT SAFETY INSTRUCTIONS**

**WARNING:** When using electric products, basic cautions should always be followed, including the following.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
  - a. The power supply cord or plug has been damaged.
  - b. Anything has fallen or been spilled into the unit.
  - c. The unit does not operate correctly.
  - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.

Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

**SAVE THESE INSTRUCTIONS!**



Features and specifications subject to change without notice.

**Peavey Electronics Corporation** 711 A Street / Meridian, MS 39301 / U.S.A. / (601) 483-5365 / Telex 504115 / Fax 486-1278  
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